COMING FEATURES

(dates are tentative)

GENERAL

Numbering System for All Yarns ..... Mar. 12
Microscopic Fiber Study.... Mar. 19
Density in Yarn Packages.. Mar. 26

COTTON

Twist Variations..... Mar. 12
Warping for Satisfactory Slashing and Weaving.... Mar. 19
Marquisette Weaves ..... Mar. 26

WOOL

Merino Blend on French System ..... Mar. 5
Loomfixers' Problems ..... Mar. 12
New Fabrics ..... Mar. 26

SILK

Filature Troubles ..... Mar. 5
Winder Differential Motion Mar. 19
Loom Shipping and Driving Mar. 26

RAYON

Processing Rayon Fabrics... Mar. 5
Fabric Forecast ..... Mar. 19
Adjusting Loom Lay ..... April 2

KNITTING

Cut-Presser Designing ..... Mar. 19
Full-Fashioned Narrowing.. Mar. 26
Rib Designing ..... April 2

PROCESSING

Hosiery Dyeing ..... Mar. 12
Dasheen Starch ..... Mar. 19
Preventing Shrinkage of Wool Knit Goods ..... Mar. 26

ENGINEERING

Selecting Power Equipment.. Mar. 5
The Truck Garage ..... Mar. 5
Unit Heaters ..... April 2

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Textile World

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Contents—February 27, 1932

Editorial: The Outlook Brightens..... 15
The Week in Textiles as Reflected in This Issue..... 16
Day and Night Operation Kills Profits in Wool Industry. 18
Southern Leaders See Return of Confidence in Business.. 20
Cotton Goods' Extensive Use in Electrical Insulation.... 22
Wages and Hours of Labor in Silk and Rayon Mills..... 26
Overseers Discuss Spinning Technique at N.A.C.M. Forum 28
Underwear Association Dramatized Price Emphasis Folly 34
Mills Divided on Woolworth 20c. Merchandise..... 35
Mesh Hosiery Vogue Assumes "Boom" Proportions..... 45
Paris Accents Fabric in Style Trend..... 54

Overseers' Round Table.. 32
News About Men..... 36
Textile Calendar 36
Obituary 37
News About Mills..... 38
Machinery and Processes. 40
Questions and Answers... 42
TEXTILE WORLD Analyst.. 45

Cotton and Cotton Yarns. 47
Wool and Worsted Yarns. 47
Silk, Silk Yarns, Rayon.. 49
Fabric Markets 51
Knit Goods Markets 52
Financial Reports 53
Business News 55
Quotations 56

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Editor: Douglas G. Woolf

The Outlook Brightens

BELIEVE it or not, things are looking up. Business leaders are still a little gun-shy when it comes to making optimistic statements, but the average citizen is becoming more vocal. If the group of people we happen to know and meet is at all a representative cross-section, we have no doubts about a gradual but steady return of confidence.

The better feeling is due to a combination of tangibles and intangibles which almost defy scientific analysis and which, in fact, resist classification as causes or effects.

▼

Certainly, one of the vital factors in the present situation is the improved sentiment regarding the credit picture. This, in turn, is largely the result of cooperative action between the two political parties. True, the lid may be off now and we may expect several months of pre-election bickering as to "who won the war," but the good has been done. Legislation has been passed which brings renewed hope to all except the bitter-end deflationists.

In retail circles there are encouraging signs. The drive on price seems to be abating. We shall still have sales which will tempt customers to reap imaginary profits from the losses taken by manufacturers—but the worst of that phase is apparently over. Merchants are coming to realize that *quality* still has a certain amount of sales appeal, and are also beginning to scrutinize their sources of supply a little more carefully.

It takes courage to mention the stock market but, no matter what happens between now and next week, the attitude reflected there recently cannot be entirely ignored.

In textiles specifically there have been many straws to indicate the direction of the wind.

Average weekly sales of cotton goods in January were larger than those recorded in any month since September, 1929, and the tone during February has been strong. Recent developments in print cloths have led so sound an observer as B. B. Gossett to state publicly that his "confidence in the future of the cotton textile industry of the Carolinas is greater today than at any time in the last 10 years." Probably it is not misinterpreting him to infer that his optimism applies to the industry as a whole.

Our own wanderings among woolen and worsted mills within the last ten days have made us feel that, while there is much still to be desired in that branch, manufacturers are beginning to sense the wish of their more responsible customers for stability. This, coupled with the renewed demand for concerted constructive moves in wool manufacture, makes the outlook in our opinion brighter than for some time.

Similarly, in all other branches of the textile industry, there are factors at work and indications of confidence appearing that form the basis for hopefulness.

▼

In expressing these optimistic statements, we have not lost sight of the fact that there has been more than one "false start" out of the current depression. Nor are we ignoring certain factors which are still delaying recovery. Particularly are we disinclined to anticipate any broad, rapid upward movement in business volume and prices.

We do feel, however, that the foundation has been laid for a gradual, steady improvement—interrupted from time to time by recurring periods of doubt, but broadly heading in one general direction.

It is such a situation which calls, not for unrestrained buoyancy, but for determined resistance to the growth of any further destructive tendencies.

The Week in Textiles

as Reflected in This Issue

General

Land, Ho!

B. B. Gossett and T. M. Marchant are beginning to see dry land through the fog of business depression. They both spoke at a meeting in the South this week and brought a message of cheer and encouragement. *(page 20)*

Mills Study New Woolworth Policy

The plan of F. W. Woolworth & Co. to add 20c. merchandise to their traditional 5 and 10c. line, will definitely affect some textile fields, it is expected, and mill men are studying possible developments. *(page 35)*

New Twisting Frame

Several radically different features are noted in a new twisting frame which features high production and uniformity of twist. A wide range of yarns may be treated on this unit. Complete details of operation are given. *(page 40)*

Glass-Lined Mixing Equipment

Announcement is made of the development of a new line of glass-lined mixing and storage equipment designed for the preparation of dyes and chemicals in liquid form. *(page 41)*

Paris Emphasizes Fabrics

Latest Paris styles give emphasis to fabrics, according to a symposium of expert fashion opinion, given at the monthly luncheon of the Fashion Group, held last week in New York. *(page 54)*

Cotton

Cotton for Electrical Insulation

Wide use of cotton is found in the electrical field. Both in yarn and tubular-woven forms cotton is used extensively for insulation purposes. Methods of application and various uses are discussed. *(page 22)*

Spinning Details Discussed

Such topics as self-weighted top middle rolls, mirror rings, roller top clearers, and oils were discussed at a recent meeting of cotton spinning overseers. *(page 28)*

Cotton Reacts a Bit

Raw cotton settled back a bit this week after an advance which brought quotations to new highs for the movement. It is reported that offerings from the South increased perceptably at over 7c. and demand was not vigorous enough to absorb them. *(page 47)*

Yarns Fight Up Hill

Cotton yarn sellers seem to be making a valiant effort to move their market to higher price levels but while certain lots of cheap yarns still remain the rise is difficult to make effective. Carded yarns are duller than combed; in fact the latter show encouraging signs of life. Dealers hope that with returning confidence yarn business will show real improvement. *(page 47)*

Goods Market Broadens

Cotton goods swing into more general activity after last week's report on the support offered the curtailment program. The fact that the success of the plan is conceded is evidenced in the fact that contracts for a number of print cloths have this week commanded a premium over spots. Prices have not advanced again but are firmer. *(page 51)*

Wool

Curl in Necktie Lining

The tendency of a necktie lining to curl is established as the result of improper setting. Variations in the finishing routine to overcome this defect are suggested. *(page 42)*

Finishing Astrakhan

The quality and twist of the yarn used in astrakhan fabrics governs the development of the loop or curl. Suggestions as to the proper method of scouring are offered. *(page 42)*

Worsted Yarns in Rut

Worsted yarns find it difficult to get out of the rut of inactivity into which they have fallen in recent months. Buyers are operating on a close hand-to-mouth basis which only gives spinners a chance to fight for a scant business with cut prices. *(page 47)*

Wools Inactive

Wool has been distressingly quiet of late according to Boston reports. In most quarters firmness is maintained, but easiness is mentioned, limited principally to lots of less desirable wools which might be slow moving even on a better market. Sellers argue that their statistical position is much sounder than a year ago at this time and that it warrants a turn for the better. *(page 49)*

The Textile Outlook

THINGS have turned just good enough in the textile field to rouse a lot of talk as to why they are not better. Cotton has made a fair advance from bottom levels but was lately reactionary. Wool has been firm for several months but moves slowly now. Silk has been relatively steady considering the dynamic forces at play all around it. The fabric markets have done better generally in the first two months of 1932 than in the last two of 1931. Several branches of the industry are still laboring under the heavy handicap of buyers' buy-as-you-sell policy. The yarn divisions particularly find buyers sluggish in operating ahead and insistent on low prices when taking small nearby lots. Future deliveries have been selling at a discount from spots in a number of lines for several months—in cotton goods this week this condition has been reversed. The fact that future goods in several constructions command a premium over early deliveries is hailed as a return to much more healthy and favorable a condition. Sentiment is described as more cheerful than it has been for months. Intelligent control of production is given the credit.

Conservative Fabrics Favored

Conservative fabrics are favored in current wool goods sales, and men's worsted novelties are very weak, sales reports show. *(page 51)*

Knitting

Underwear Selling Dramatized

Underwear salesmanship is the theme of a series of striking sales-letters sent to the retail trade by Roy A. Cheney, executive secretary of the Associated Knit Underwear Manufacturers of America. *(page 34)*

Dark Streaks in Stocking

Improper selection or incomplete removal of lubricating oil on rayon plating yarn is blamed for the development of dark, horizontal streaks in the resulting stocking. Faulty conditioning of the yarn prior to knitting may be a contributory cause. *(page 42)*

Mesh Hosiery Hits High

Mesh hosiery demand, a boom proposition, has lifted these knitters out of the dumps. The market places a premium on originality of design and quality of manufacture in these lines and this week's TEXTILE WORLD Analyst suggests a lesson for textile mills generally in the way in which these quality goods have been lifted out of the closely competitive field. *(page 42)*

Mesh Hosiery Selling Ahead

Mesh hosiery demand so far exceeds supplies, mills ask two to three weeks for deliveries. *(page 52)*

Underwear Openings Slow

Buyer indifference has influenced numerous manufacturers of winter underwear lines to defer their openings; many firms have not shown new lines yet. *(page 52)*

Cotton finds a new use in these Durene fabric shoes by Delman. The fabric is Durene Caroa, made by J. & H. Lehmann. Importance of eyelet and lace influence has been interestingly combined in this fabric.

Striped Sweaters Active

Horizontal stripes and bright shades are favored in the current call for women's worsted sweaters which is a feature of the outerwear market. *(page 52)*

Silk

Wages and Hours of Labor

The Bureau of Labor statistics covering 49,000 wage earners in representative silk and rayon mills disclose marked variation in wages and hours of labor in different states. *(page 26)*

Lousiness in Organzine

Overworking of silk during dyeing tends toward the development of a chafed condition which will create an appearance of lousiness in the finished goods. In many cases, however, the dyer may be exonerated, as the silk itself may be lousy in nature. *(page 43)*

Silk Prices Weaken

Poor buying and a downward tendency in Yokohama quotations brought a drop of 5 to 10c. in silk. *(page 49)*

Spinners Seek New Outlets

Lack of demand for shantung fabrics is forcing silk spinners to seek new markets; the underwear and blanket fields just being developed offer partial solution to problem. *(page 49)*

Broadsilks Selling, Despite Strike

Canton crepes, chiffons and heavy georgettes are in good call, despite dress trade strike in New York, weavers report. *(page 51)*

Rayon

Crepy Stitches in Hose

The various causes of crepy or uneven stitches are outlined, and remedial measures are suggested. Careful study of dyeing and knitting conditions is essential. *(page 42)*

Rayon Market Firm

Yarn market continued firm, with steady demand from both knitters and weavers. Curtailment holds down producers' stocks. *(page 49)*

Processing

Finishing Sash Cord

An outline of the method of finishing sash cords, clotheslines, and curtain cords is provided. Stretching, sizing, polishing, and drying are all considered. Methods of preventing mildew are discussed. *(page 43)*

The Business Outlook

THE level of industrial and commercial activity is still slowly subsiding, but a belated and possibly brisk spring spurt is still expected as soon as the effect of the Administration's financial measures is felt and low-price automobile production gets under way. Steel and electric power output continue persistently depressed by delayed automotive demand, problematic price policies and unseasonable weather. A mild revival of rail demand and strengthening in second quarter steel quotations are slightly encouraging indications that some seasonal increase in steel activity will not be lacking, though unusually late. Building contract figures for the first half of February are more hopeful than was expected. Merchandise carloadings, commodity prices, and employment as yet show no response to sanguine security market movements or the slight easing of the credit strain indicated in slackened hoarding, diminished member bank liquidation and the first upturn in commercial loans for many months. The domestic picture appears to offer prospects of at least temporary stabilization and improvement during the next quarter.—*The Business Week.*

Day-and-Night Operation

Makes Profits Unattainable in Wool Industry

By William H. Richardson

THE experience of the wool industry in 1931 was amazingly out of line with that of most other industries. Practically all manufacturing operations in the country were on a lower basis during 1931 than in 1930, but wool manufacturing, in almost all its branches, far exceeded the previous year, and in some instances surpassed 1929. There had been a general feeling that 1931 would be a year of regrets. No doubt, so far as profits were concerned, this proved to be true, but the production of both yardage of woven fabrics and pounds of yarns far exceeded expectations. In fact, there were some months in the year when the weekly active working hours per loom and spindle were greater than at any time since the war.

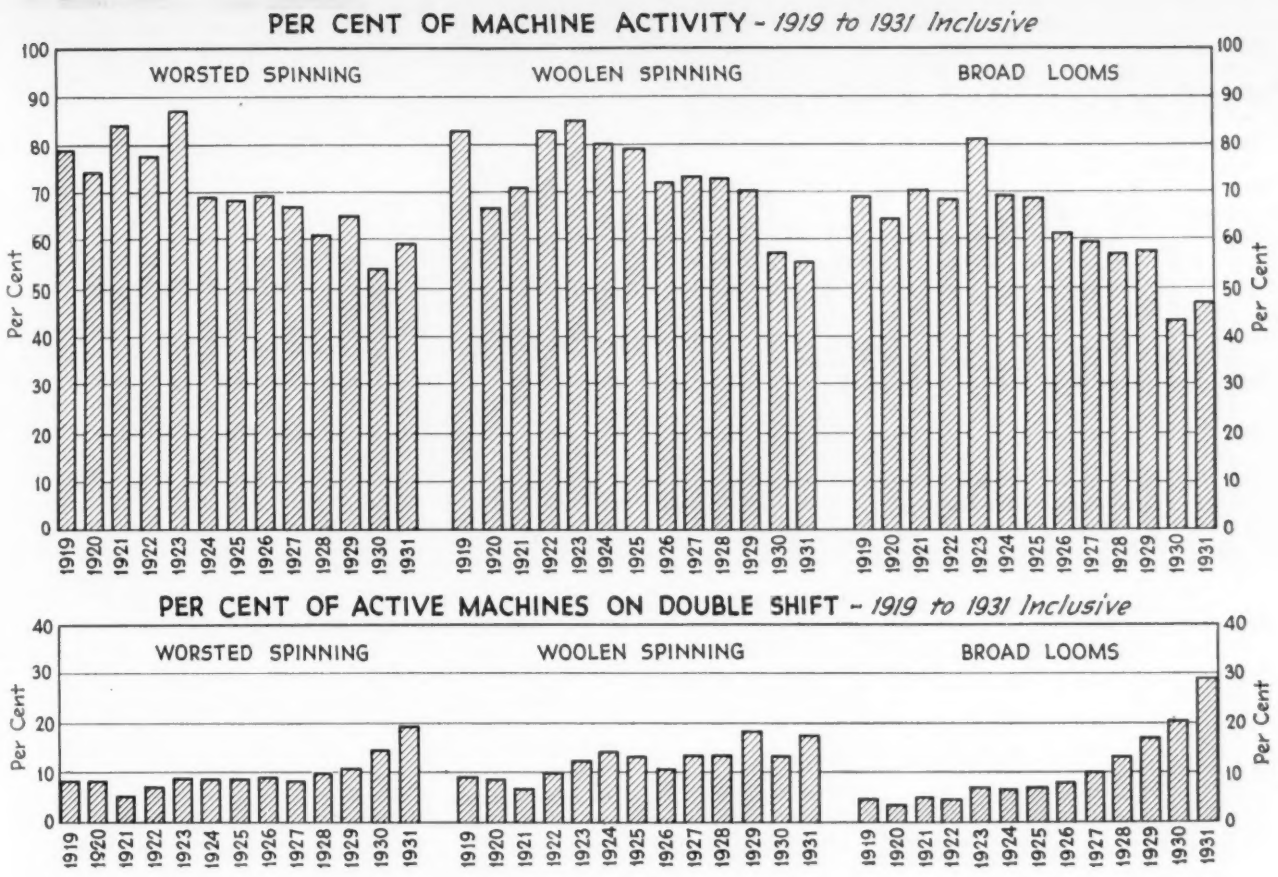
The disappointing feature is another year without profit. Where the majority of mills continue to operate at a loss, there must be an underlying reason which has not yet been discovered. We have attributed blame to the decline in wool prices as a major factor; we assert that there is too much machinery; hand to mouth buying is named as another cause; the lack of trade ethics and many other minor factors are also regarded as the real cause or causes for the continued depressed conditions. Is not the main reason to be found in the fact that we have ten units of yards, of goods, or pounds of yarns, to sell and only five buyers? Further, if this condition were reversed and we had ten buyers for each five units, or say even nine buyers for ten units, would not a large part of our troubles vanish, and would not manufacturers consider the matter of profit more carefully than at present?

In an effort to determine some one factor that might be the basic reason for the continued unsatisfactory condition of the majority of mills, the several factors memtioned above were analyzed. First, we find that the industry is woefully lacking in authentic statistics. We have a steady decline in raw wool prices that is world-wide. Is this due to a lack of consumption, or because of increased production of raw wool? Our first answer is both, which is correct. But when we analyze this further, we find wool production from 1921 to 1928 was increasing at a far more rapid pace than its apparent consumption, even if consumption has been normal throughout the world. Inasmuch as we do not have authentic figures of world consumption, we are at a loss in an effort to make any comparison. We do know that Japan has become a buyer of raw wool to a far greater degree than in previous years, and is now manufacturing for home consumption products that were formerly purchased in the markets of Europe. Has this replaced machinery in the European manufacturing centers, or is this an increased market?

While this example is cited merely to indicate world conditions as possibly one of the reasons for our condition, it is of course, only one. There are many others which may or may not affect us here in the United States. Knowing that the world's wool production did increase from 1921 to 1928, it naturally had a bearish effect upon the prices of the raw material. However, since 1928, we have had a steady decline in wool production throughout the world. This does not apply to the United States, however, where our wool clip has been constantly increasing. Even with this increase we are still compelled to buy in the world's wool markets in order to clothe our people. With this increase we are now gradually becoming more independent of the world's wool markets, but with any increase in our own business, we would again be forced to become a larger purchaser of foreign wools. The conclusion to be drawn from this fact is that wool should not be regarded as a major factor in a decline in mill profits from now on.

Is there an excess of machinery for present consumption? Of course we would all answer in the affirmative, but is this really the case? We have no authentic figures to prove it. We do know now, through the intelligent survey of the Industrial Research Department of the University of Pennsylvania, that we have reduced and scrapped enough worsted spinning equipment so that we

If, in addition to all the other arguments advanced against day-and-night operation of textile mills, it can be shown that such a schedule precludes any opportunity for profits, the case would seem to be complete. Such is the reasoning developed in the accompanying article. The author has spent practically his entire business life in the worsted yarn industry, and is also well known for his work as director of the spinning division of the late-lamented Wool Institute.—*Editor.*



are at present below the 1919 level of active spindles, which for all practical purposes is the pre-war condition. We also know that the number of looms is far below the high peak of 1925, although this, to some extent, has been offset by the automatic looms in place to-day. It might be very interesting to know just where we stand on the matter of looms, as we know now for worsted spindles.

Day and Night Operation

The factor, however, that should be considered, and considered very carefully by all those who are vitally interested, is the constantly increasing practice of operating looms and spindles at night. It is to this practice that we should turn our attention seriously. If we are on a pre-war basis in the matter of worsted spindles and, for the sake of argument, are practically in the same position in the number of looms, with our present equipment, how many looms should be operating per year to take care of a normal demand?

When we examine Chart I and note that not once during the post-war years have we operated all of our machinery 100% of the legal working hours allowed in the different States, it merely indicates an excess of machinery. Yet, when we know that since 1925 there has been an increasing scrapping of both spindles and looms, there must be a time when we should be on a "normal basis." Have we arrived at this position with the machinery that is now active? It would not seem too venturesome to say that we have, except for one factor, and that is the matter of night work. Examine Chart II and note the constantly increasing number of machines on night work, especially the worsted spindles and looms.

If this condition continues, and if we must acknowledge it as the modern method of manufacturing and merchandising, then we have at least 40% too much machinery, and at the present rate of scrapping, it will require at least 10 years before we reach the ideal condition of having 10 units for 10 customers. Many other industries have recognized that this over-production is a menace to profits and are endeavoring to curtail the practice, if not eliminate it entirely. It does seem as if this condition in our own industry is absolutely unnecessary. The characteristics of wool fibers are such that daylight is essential for perfect work, and the risks of mixed lots and poor workmanship at night are such that at times it must be very costly in claims, etc. Furthermore, the nature of our manufacturing processes makes it essential for the employment of a great number of female workers, and on social grounds alone, night work should be discontinued entirely.

Never in the history of the country has the consumer of wool merchandise bought so much at so little cost. This cannot continue if the industry is to live. As we are not an industry of a few mills, with one or two large units dominating the field, but a large collection of many small mills located in many instances in small towns throughout the eastern states, the closing down or short time operation of the mills is a very serious factor to the communities concerned.

A continuous operation of 45 to 48 hours per week in each of these communities would be far preferable for the country as a whole, than six months idleness followed by six months of day and night activity. While the dollars paid in wages may be the same in both cases, this continued closing of the mills, or running on short time for part of the year, and overtime for the rest of the time, tends to disrupt the organization. It makes for poorer production owing to either the employment of unskilled help for a short period, or to careless workers who realize that the job is only a temporary one at best. The argument that seasonal demands compel this condition might be accepted if the method were conducive to profits. However, as profits (*continued on page 25*)

Southern Leaders See Return of Confidence in Business

From Textile World's Southern Office

RESTORATION of confidence in American business was the keynote of a banquet held at the Charlotte Country Club, Feb. 22, when 300 agricultural, commercial and industrial leaders, including a large delegation of cotton manufacturers from various sections of North and South Carolina, assembled. Several interesting addresses, including one by Governor Ibra C. Blackwood of South Carolina, featured the program.

The value of cooperative movements in the cotton textile industry was stressed by B. B. Gossett of Charlotte, vice-president of the American Cotton Manufacturers Association, while the importance of educating the public concerning the industry's problems was emphasized by T. M. Marchant, president of Victor-Monaghan Co., Greenville, S. C. Voiced by every speaker was the feeling that the crisis of the business depression had passed. R. M. Hanes, of Winston-Salem, N. C., president of the North Carolina Bankers Association, expressed his confidence in the banking institutions of his State. A message from Governor O. Max Gardner of North Carolina, who was not able to attend the banquet, expressed the belief that "the crisis is swiftly passing and the time is at hand for those who have courage to pledge anew their faith and confidence in the essential soundness of these two great commonwealths."

Gossett Sees Stability Assured

"My confidence in the future of the cotton textile industry in the Carolinas is greater today than at any time in the last 10 years," stated Mr. Gossett. More important still, he produced facts to support his optimism, and to substantiate his claim that the cotton textile industry "is now for the first time in its history almost certainly assured of a prolonged period of stability and fair prices which ought to enable all well-managed mills to operate at a profit."

That part of Mr. Gossett's address which dealt with the textile situation, follows:

Most of you are familiar with the news that has appeared regularly of late concerning the featuring of cotton goods for practically all purposes in the style shows in Paris. "Cotton clothes for every hour of the day" was the spring style edict at these shows. In fact, as late as Jan. 29, an Associated Press dispatch from Paris stated: "In material cotton has been raised from humble rank to high favor." What does this mean? It simply means that if the manufacturers of cotton goods will hereafter show just a little greater respect for the law of supply and demand and avoid over-production that even in these hard times the industry, and particularly that part of it engaged in the manufacture of style goods, can be made to blossom like a rose.

According to the latest statistics, our industry as a whole is operating at approximately 94% of normal. The South is operating considerably more than 100% of a normal day run. Ours is the only industry in America so far as I know that is operating on such a scale. The steel industry, for example, is operating at less than 30% of normal. Practically all other industries are operating on greatly curtailed schedules. There is not the slightest justification for the cotton textile industry operating 94%. It is clear, however, that at this time there is ample consumer demand to justify 75% or even 80% operations. Indeed, I am confident that on such a schedule, we would all soon be making money.

Isn't it better to operate 75% on a basis of fair earnings than 94% at a loss? Based on past history, if the steel industry had sufficient business to operate at even 60% of capacity, it would be making money. It always has on this basis. So it is with other industries. In fact, I believe ours is the only industry in the world that has operated to 90% of capacity for a long period at an absolute loss. Let us therefore bring our production within reasonable bounds and keep it there.

In this connection, I think it is generally recognized that the state of overproduction in our industry is due largely to hitherto uncontrolled and unrestricted night operations. It was frankly in recognition of this, and also for the purpose of meeting an overwhelming and universal demand on social and humanitarian grounds, that a plan was developed to eliminate women and minors from night work. This plan has been accepted and put into effect by more than 80% of the industry, including approximately 78% of those who are engaged in day and night operation. Already the results have been startling and highly beneficial.

Unfortunately, however, the plan is a progressive one and we must have the support of about 3% additional by March 1 if this great reform measure is to be saved. An earnest and intensive effort is now under way to get the additional 3%. If we get it, it will mean a further tightening up on what is in effect certain automatic control of the night run. More than this, it will mean that in another year or so, we will voluntarily have brought about in our industry the complete elimination of women and minors from the night shifts, thus meeting a nation-wide demand for this great and far reaching reform.

But, in addition to this, some emergency curtailment is absolutely essential to keep production in line with present and prospective demand during the present period of depression and I am happy to say that in the print cloth group, for example, a finer spirit of co-operation than has ever before been known has resulted in the mills individually and on their own initiative reducing their running time over the period of the next six months in an amount sufficient to avoid overproduction.

It is therefore evident, for the reasons which I have undertaken to point out, that the cotton textile industry is now for the first time in its history almost certainly assured of a prolonged period of stability and fair prices which ought to enable all well-managed mills to operate at a profit. In other words, our industry is being gradually revolutionized through the substitution of co-operation for cut-throat competition. Ultimately these developments will make for higher wages, better living conditions, a fair return to our stockholders on their investment, and the ability of the mills to pay an income tax at a time when additional revenue is sorely needed by our State and national governments.

Mr. Toastmaster, I am not permitting the enthusiasm of this occasion to run away with my imagination. I can state to you without hesitation or the slightest mental reservation that my confidence in the future of the cotton textile industry in the Carolinas is greater today than at any time

in the last ten years. Therefore those of you who have your money invested in cotton mills, which have survived the terrible storm which has raged for the last 2½ years, I think, can now feel that you have a really worthwhile investment which ought soon to be paying you a fair return.

Marchant Asks Public Support

"The people of the Carolinas should throw the weight of their influence behind the development, rather than the strangulation of the textile industry," declared Mr. Marchant. An abstract of his address follows:

Our industry has already made tremendous strides toward the elimination of selfishness and jealousy within its own ranks. We need now but to secure the reasonable public co-operation which the circumstances justify. In the spirit of this gathering, therefore, I will mention a few of the problems facing the textile industry, in the solution of which the public at large can assist.

That the last 30 years have proven the Southern States to be an excellent place in which to operate a cotton mill is unquestioned, but those who follow the textile industry are still considering just what will be the progress of the industry in this section during the next thirty years. Is the seat of the industry here to stay, or shall it pass on to other realms? Shall this, one of the greatest industrial assets of the Carolinas, continue to grow and prosper in our midst, encouraged by natural advantages of what we have believed to be a remarkable environment; or shall cotton manufacturing supremacy pass on to other lands, leaving us in the wake as it has left New England and old England? This is a question which the people of the South and of the Carolinas can and will answer.

Contrary to general belief, the operating margin allowed for the manufacturing costs of cotton goods, the spread between the price of cotton and the finished product, is a comparatively narrow one. One of our average mills in the Carolinas in the month of March, 1929, submitted a statement which showed that of every dollar expended by the mill, the farmer received 58c., the operative 21c., supplies 6c., power 4½c., plant maintenance 3½c., sales 2c., management 1½c., taxes 1½c., profits 1c., surplus 1c.

These figures I believe to generally apply to the industry at large, except that during the last several months there have been very few cotton mills that have been fortunate enough to make a profit of even 1c. on each dollar.

Under such circumstances it is easy to see that there are a number of factors in the profitable operation of a cotton mill which need a sympathetic public attitude—factors which are influenced materially by environment. It can easily be seen that it behooves the mills of the Carolinas to give the closest attention to conditions existing not only within the industry, but also without.

As a result, there has been a determined effort on the part of the mills to avoid over-production. In this day, when the purchasing power of the individual is greatly reduced, and we are operating in the face of a buyer's market; when our mills have largely lost their foreign trade, nothing is more essential than that they carefully watch their operations so as not to over-produce.

The mills have learned to court a favorable public attitude, for after all the public buys their goods. The public influences practically every step in the manufacture of the goods. The public produces the raw materials. The public fixes freight rates, taxes, legislation, power costs; and were it not for the fact that the Carolina public appreciates the textile industry; were it not for the fact that the cotton mills are operating in a sympathetic environment, profitable cotton manufacturing here would be impossible.

Another serious problem faced by the mills is that of taxation. The cost of government is so tremendously increased; the high cost of living has so increased in the Carolinas as to make taxation a very serious problem with the cotton mills.

The National Industrial Conference Board has made the startling disclosure that the corporations of America contribute 36% of their net incomes toward the support of government. Thus a mill operating in North Carolina nine hours per day must work three of those nine hours solely for the government.

It is interesting to note that at the beginning of the ten year period (1922 through 1931) the tax rate per spindle paid by Fall River and New Bedford mills was considerably higher than that of the Carolinas. During the ten year period, however, the picture has entirely changed. What then does it indicate? It clearly indicates that the mills of South Carolina must yet face the same problem that was faced in New England. The New England people were awakened to the fact that their industry was suffering and could not exist under such a staggering load of governmental costs.

The matter of legislation is another problem which confronts cotton manufacturers. Each session of the legislatures of the two States, and for that matter, all of the Southern States, brings forth half-baked legislative ideas, which if carried into effect might stagger industry, and perhaps even strangle it to death.

Records will show that most of the worth while, constructive legislative measures that have been enacted in the South have received the widespread approval and endorsement of the mills themselves. The manufacturers, of all people, can see the interests of their employees and of their State. They are deeply interested in wise legislation, which will help the operative himself and also help the industry in which he works.

As a matter of self protection, from the standpoint of selfish interest, as well as from a patriotic standpoint, the people of the Carolinas should throw the weight of their influence behind the development, rather than the strangulation, of the textile industry; should help to solve, rather than increase the burdens of cotton manufacturing.

B. B. Gossett

B. B. Gossett has established for himself a reputation for frankness, whether he is speaking publicly or privately. Consequently it is particularly interesting to compare his statements this week with those made at the Southern Textile Association last June.

"Recently the industry has suffered more from poor merchandising than from all other agencies combined," he told the S.T.A. In fact developments at that time had led him to "question the permanency" of the South's position in cotton manufacturing.

But this week the same man stated that his "confidence in the future of the cotton textile industry is greater today than at any time in the last 10 years." He cited the fact that there has recently developed in the print cloth group "a finer spirit of co-operation than has ever been known before."—*Editor.*

Thomas M. Marchant

Cotton Textiles Find Wide Use for Electrical Insulation

By R. I. Martin

SINCE the earliest days of electrical engineering, cotton, in one form or another, has been largely used for insulation purposes. In many cases electrical engineers had at first to adopt to their uses products manufactured without any regard for their ultimate employment in electrical apparatus. Increasing demands of the electrical industry, however, have induced other manufacturing industries to produce materials especially suited for the severe conditions to be met. Today cotton textiles are used for primary insulation, for mechanical support and protection of other insulation, and as the basis of laminated boards and other manufactured insulations.

Yarns and Threads

Yarns are applied to copper wires, both round and rectangular, by lapping—one, two, or three layers being applied, usually in opposite directions. The most commonly used covering is two laps of cotton. These conductors, often known as "magnet wires," are used extensively in the windings of coils for armatures, fields and stators of motors and generators, and for transformer windings, operating coils of control and switchgear, and all manner of electro-magnetic windings where long lengths of uniformly insulated wires are required. The space taken up by cotton coverings on wires is of great importance in most windings, particularly on wires of small diameter, but wires can be obtained with various thicknesses of coverings, as indicated in Table I.

In some cases additional coverings are applied by braiding, especially where large conductors have to be severely handled and bent during winding operations. Coils wound with cotton-covered wires are invariably treated, after thorough drying, with a good insulating and moisture-proofing varnish, or with a hot molten compound of bitumen, resins, etc. The outstanding properties required of cotton coverings of wires are good length of staple, freedom from electrolytes and other injurious chemicals, resistance to deterioration by heat, good space factor, resistance to abrasion, and good electrical properties.

There are many varieties of wires and cables in which cotton is used more as a protective layer or covering than as the primary di-electric. The principal case is the braided cotton coverings of flexible wires. In these instances the braided covering is usually a mechanical protection to rubber-covered stranded wire. It is obvious that resistance to wear by abrasion or chafing is all-important in these cases, electrical and chemical considerations being of less significance. There are many other cases where cotton is used in some portion of wires and cables, especially those for telephone work. In some instances untreated or specially treated strips of fine cotton cloth are employed to keep rubber from contact with the copper conductor in order to protect it from the action of sulphur in the rubber.

Cotton yarns and threads are used for sewing, tying, and binding other insulations together, especially for holding the leads of coils. One important example is for binding over paper-wrapped conductors of transformer windings where the main dielectric is paper, and cotton yarn is lapped on the outside in the opposite direction to the paper, to hold the latter in place. In these applications, good tensile strength, chemical purity, and resistance to ageing are desired.

Another important application of yarns is in the special method of insulating coils on winding machines, in which yarns are wound in with the wire, to form an insulating layer between layers of wires. Cotton yarns are also used to some extent in the weaving of certain asbestos tapes and fabrics in order to give the asbestos threads more strength during and after weaving.

Cotton Tubular Sleevings

Tubular woven sleevings—generally plain braided, but sometimes knitted—are used in two ways. (a) The untreated sleevings in short lengths are slipped over leads of coils to give additional insulation and protection where wires have to be bent and connections have to be made. The untreated sleevings may form the basis of special varnished tubing sleevings having good electrical properties and not requiring subsequent treatment. Some varieties are particularly flexible, and these are used extensively for insulating connections of motor coils, transformers, leads of control gear operating coils, wiring on switchboards, and all manner of connections, such as those in radio apparatus. Details of typical sleevings are given in Table II.

Cotton tapes, of widths varying from ½ to 2 in., are invariably employed for the outer coverings of insulated windings, especially the coils of armatures, fields, a-c.-motor and generator stators, and in numerous other important instances, particularly where parts have to be bound tightly together as in leads and coils of high-speed rotating windings. Details of typical cotton tapes and webbings now in use in the electrical industry are given in Table III, from which it will be seen that these range in thickness, from 0.003 to 0.028 in., and include both plain and twill weaves. Some tapes have a colored warp thread in the middle to facilitate lapped tapings.

Tensile strength is generally of importance as, during taping operations, the tension applied is often considerable, especially when binding down armature conductors and covering transformer windings. Also tapes are frequently used where mechanical stresses are expected due to centrifugal force on rotating parts and magnetic repulsion of conductors during heavy overloads. The webbings of herringbone weave are particularly useful where great strength and adaptability to curved surfaces are required.

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Other mechanical properties, such as resistance to wear, and abrasion or disintegration from hammer blows, are important, but the predominant feature in this, as in most uses of cotton products in electrical windings, is the ability to withstand heat without marked deterioration of the strength. For this reason, therefore, as well as for others, it is important that cotton tapes should be as free as possible from any injurious chemicals which will tender the cotton when heated. Presence of these substances is also source of possible danger to other materials likely to be in contact with the cotton products, and in the case of very fine wire coils, may initiate or cause sufficient corrosion of the copper to effect complete severance of the wire and failure of the coil.

As it is often necessary to apply smooth, protecting varnish coating to the insulated parts after taping with cotton tapes, these should be uniform in structure and free from excessive nap. It is usual, therefore, to singe the taped surfaces with a gas flame before varnishing.

Untreated Fabrics

Cotton cloths are used in the untreated condition for a large variety of purposes where the flexibility and strength peculiar to woven cotton goods can be utilized, but here again they are employed more for mechanical backing and protection of other sheet materials than as insulations themselves. They are invariably unbleached, as the color is of no object and the maximum strength is required.

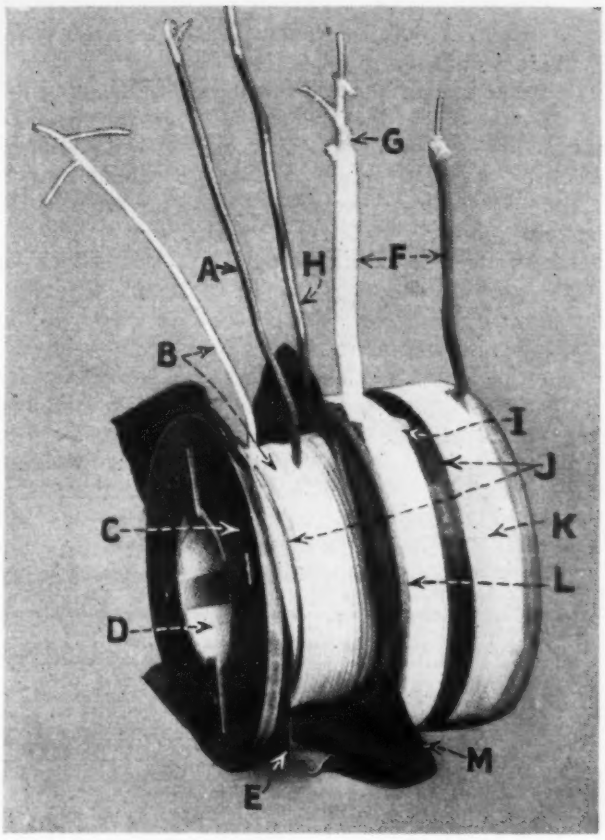
Cotton fabrics weighing from 2 to 12 oz. per yard are employed by themselves for a few purposes; the thinner cloths for interlayer insulation and coverings of small spools, and the heavier cloths for the protection caps of armatures and field coils, especially those of traction motors. In the latter cases closeness of weave and strength are particularly important to prevent ingress of dust and damage of the coils during handling. If the finer fabrics are likely to be used in contact with fine copper wires, it is necessary to have chemical purity to avoid corrosion and other troubles from electrolytes.

Fine Egyptian cotton fabrics are often used for backing sheet insulations, such as flexible micanite, where the micanite, being delicate to handle, requires reinforcement to enable ready application to slot portions of coils, and, when slit into strips, for taping end portions. The cloth is sometimes varnish-treated, and is generally pasted to the micanite sheet with a suitable adhesive. Uniformity of weave and thickness, together with good resistance to tearing, are the chief requirements of these fabrics.

Treated Fabrics

Quite a large variety of cotton cloths are pretreated with insulating and moisture-protective varnishes and compounds before they are applied to electrical windings, this group of treated fabrics being similar to those already referred to. These are, however, quite distinct from the group generally known as "varnished cloths," which are described later. The former are merely treated to give them greater resistance to moisture, heat, and oil, very little reliance being put upon their ultimate electrical properties, whereas, in the latter case, the materials are specially produced to give good electric strength. The pretreated fabrics are particularly useful for wrapping and protecting parts of windings which are difficult to dry and treat later with varnishes and compounds after completion. Details of these and other cotton cloths used in electrical apparatus are tabulated in Table IV.

Extensive use is made of adhesive and other forms of



A. Cotton braided flexible wire.
B. Double-cotton covered magnet wire.
C. Synthetic resin - bonded fabric spool flange.
D. Spool body of vulcanized fiber (made from cotton)
E. Yellow varnished cloth.
F. Untreated cotton sleeves.
G. Yellow varnished cloth.
H. Varnished cotton sleeve.
I. Untreated cotton cloth.
J. Cotton binding thread.
K. Untreated cotton tape.
L. Press - board barrier made from cotton.
M. Black varnished cloth.

Partly wound coil showing typical uses of cotton textiles for electrical insulation

treated tapes, generally slit from cotton cloth treated with rubber, bitumen, or other materials. The adhesive tapes are particularly useful for all manner of cases where connections, ends of cables and exposed terminals, etc., are required to be covered. The uses of these tapes range from motor-car wiring and domestic installations to traction motors and even larger machines in the industrial field. A certain amount of strength is necessary in the fabric for these tapes, but in this case the tearing strength is not required to be too high as they should be capable of being torn across fairly readily. The adhesive and electrical properties are, of course, determined by the type of treatment and covering material applied.

Special varnished cotton fabrics are, perhaps, the most important of the cotton fabrics employed for insulating materials. The cloths are varnished by passing through a bath of insulating varnish at a uniform slow speed, and then through a heated oven in which the varnish films are oxidized and hardened, several coats of varnish being thus applied generally in one continuous operation, the completed material being rolled again on a batch. Selvage cloths about 36 in. wide and 3 to 5 mils thick, are in regular use for making sheet varnished cloths, and these are often cut into strips or "tapes," either parallel to the selvage or at an angle so that the threads are oblique to the edges (bias-cut tapes). This latter condition has been found to be extremely useful, and in fact essential, for a large number of taping operations

where strips cut parallel to the threads tear too readily and are not sufficiently adaptable.

The necessity for these bias-cut tapes in long lengths on reels caused the development of a special method of manufacture in which the selvage cloth, when completely "finished," is cut obliquely; e.g., at 45° about every 50 in., the pieces turned through 45° and sewn together, selvage to selvage. This gives a continuous length, with threads running at 45° to the edges, which is then varnished as in the case of a straight fabric and afterwards is cut into narrow tapes. The presence of the sewn joints is a disadvantage in many applications of these tapes, as the material is much thicker at the joints, and as a rule these are electrically weak places. Recent developments have evolved seamless bias tapes which are more economical. These are made from a tubular woven fabric (pillow casing) cut helically at 45° to the threads and then gassed, finished, and calendered in the bias form. The fabric is delivered to the varnisher as a bias cloth, say 34 in. wide, and is varnished as in the case of selvage cloths, the varnished material being slit into seamless bias tapes which are continuous for considerable lengths.

There are two main schools of thought regarding the best methods of finishing these fabrics: one holding that as little dressing as possible should be used so as to enable the varnish to impregnate the cotton thoroughly; the other maintaining that the cotton fiber should be protected, by starch or other dressing, from contact with the varnish which may tender the fiber by oxidation, and that the cloth should be finished so as to allow very smooth and uniform varnish films to be applied. In all cases, however, it is agreed that the nap should be removed as completely as possible, otherwise it may protrude through the varnish and give poor electric strength. The construction and properties of typical varnished cloth products are given in Table V. The cloths are used extensively in sheet form as slot insulation in motor and generator windings, as spool insulation on field coils, and on the cores of transformers. The uses of the sheet, strip, and bias-cut tape-varnished cloth

Table I. Details of typical cotton-covered wires (Lapped)

Type of Covering		Total Thickness of Covering (mils.) (Extra on diameter) Bare Diameter of Wire			Yarns Used Bare Diameter of Wire					
					.0076 in.		.00.036 in.		.128 in.	
		.0076 in.	.036 in.	.128 in.	Count	Ends	Count	Ends	Count	Ends
Single Cotton.....	Specially fine	3/3.5	4/5	6/7	160s	5	80s	18	80s	24
Single Cotton.....	Ordinary.....	4	5/6	7/8	120s	5	60s	16	60s	24
Double Cotton...	Specially fine	5/6	6/7	9/10	140s	5 5	120s	19 19	80s	22 22
Double Cotton...	Ordinary.....	7/9	9/11	12/14	120s	5 5	60s	13 14	60s	20 20
Triple Cotton....	Specially fine	...	16	16	....	...	120s 80s 80s	18 15 18	80s 80s 80s	21 22 22
Triple Cotton....	Ordinary.....	...	20	20	....	...	60s	13 14 16	60s	19 20 20
Enameled Single Cotton.....	Specially fine	4.2	7.5	9/10	140s	5	80s	18	80s	24
Enameled Single Cotton.....	Ordinary....	5	9/10	10/10	120s	5	60s	16	60s	24
Enameled Double Cotton.....	Specially fine	7	10	13/14	140s	5 5	120s	19 19	80s	22 22
Enameled Double Cotton.....	Ordinary.....	9	13/14	15/16	120s	5 5	60s	13 14	60s	20 20
(Enameled)....	.....	0.7	2.5	4.0	....	...	....	....	....	....

Table II — Typical cotton sleevings used for covering connections

Approx. Diameter	Ends of Spindle	No. of Spindles
1–0.5 mm.	2	16
1/8 in.	2	20
5/32 in.	2	24
1/4 in.	2	32
5/16 in.	2	40
3/8 in.	2	52

NOTE—The above apply to soft cotton yarns, usually two-fold. Glacé cotton sleevings of single yarns are also used, some being colored.

Table III—Construction and properties of typical cotton insulating tapes and webbings

Common Name	Type of Cotton	Thickness Approx. In.	Threads: No. of Ends in 1 In. Wide Tape	Threads: Picks per Inch	Counts of Yarn: Ends	Counts of Yarn: Picks	Yards per Lb.	Tensile Strength (Lb.) 1 In. Tape
1—Superfine	Egyptian or Sea Is.	.003 to .005	120 to 90	72 to 60	2/100 to 2/96	79 to 60	410 to 330	30 to 40
2—Fine.....	Egyptian..	6.5	79	44	2/62	34	200	40 to 45
3—Ordinary.. or Dynamo	American or Indian	9.5	63	34	2/28	28 to 24	140	55 to 60
4—Webbing..	American..	.019	85	34	2/27	12	90	90
5—Webbing..	American..	.028	60	39	3/16	16	59	140

NOTE—Tapes 1, 2, and 3 are usually plain weave, gassed, and calendered. Webbings 4 and 5 are usually herringbone twill weave, two repeats (uncalendered).

Table IV — Properties of typical cotton cloths used for Insulation Purposes

Description	Thickness (In.)	Threads per Inch: Warp (Ends)	Threads per Inch: Filling (Picks)	Tensile Strength Lb. per Inch Width: Warp	Tensile Strength Lb. per Inch Width: Filling	Principal Uses
1¾ oz. cloth	.0035	112	150	19.5	20	Backing for micanite.
Insulation cloth*...	.005	63	65	31	22	For varnished cloths.
Seamless bias cloth*	.005	70	70	27	21	For seamless bias varnished cloth tapes.
2 oz. cloth.	.008	75	58	17.5	10	Interlayer insulation, etc., in coils.
3½ oz. cloth	.012	70	66	32	30	Slot liner backings and syn.-resin bonded boards and mouldings
Drill.....	.017	66	66	48	58	Protection caps and coverings of armatures, field and other coils.
8 oz. duck.	.027	48	38	57.5	49	Treated with varnish for reinforcing other sheet insulations.
12 oz. duck	.040	42	34	96	92	Synthetic resin bonded boards, mouldings, etc.

NOTE—All fabrics are generally unbleached and of plain weave except cotton drill, which is "twill" weave.

*Weight per square yard is approximately 3 oz. These cloths are dressed and heavily calendered. All others are uncalendered.

Table V — Properties of typical varnished cloths

Color	Yellow		Black	
Type of varnish	Clear Vegetable Oil		Oil-bitumen	
Thickness	.007 in.	.010 in.	.007 in.	.010 in.
Electrical Properties—				
Electric strength (minute value) in volts/mil.—				
(a) At 20° C.	780	820	900	950
(b) At 90° C.	550	600	700	750
(NOTE—Electrodes are brass cylinders 1¼ in. and 3 in. dia.)				
Sustained electric strength (Everest test), highest maintained stress, volts/mil.—				
(a) At 20° C.	250	270	290	300
(b) At 90° C.	70	85	80	90
Mechanical Properties—				
Bursting strength (lb./sq.in.)	12.5	13.0	12.5	14
Tensile strength (lb./in. width)—				
Warp	40	45	50	50
Filling	30	35	40	40
Tearing strength (oz.) double tear—				
Warp	16	18	16	18
Filling	20	20	20	20
Ageing. Effect of heating at 110° C. for 24 hours—				
Reduction of tearing strength.	50%—60%		45%—50%	
Reduction of bursting strength	45%—50%		40%—45%	
Chemical Properties—				
Effect of insulating oil	None		Slightly affected	
Effects of acids and alkalis	Slight		More resistant than yellow	

products are legion, the latter materials being particularly serviceable as a ready means of applying a good dielectric to all manner of awkwardly shaped conductors and parts, especially for connections of transformers, switchgear, and machines.

Laminated Products

A few cloths and tapes are used in the electrical industry as the basis of solid rigid insulation boards, wrappings, mouldings, etc., in which they form laminations bonded together with a medium such as a synthetic resin. These resins, particularly those of the phenol-formaldehyde type, have good bonding properties, and, although fusible at first, they can be hardened under heat and pressure to give products able to withstand temperatures such as 130 to 170° C. without appreciable softening. They are, however, somewhat brittle, and need reinforcement to give products of reasonable strength; here again the good mechanical and other features of cotton can be used to advantage.

Boards of these bonded cloth materials are used as panels and terminal boards; and various mouldings, such as slot wedges and spools, are made from these compounds, in most cases the cloth filling being preferred to papers, asbestos, wood pulp, and other materials, because of the mechanical strength provided by the cotton fabric. Incidentally, similar products are used to a great extent as gear wheels and pinions where reduction of noise is important.

Cotton In Non-Textile Forms

Mention should be made of important uses of cotton for the manufacture of electrical insulating materials, such as papers, pressboard and vulcanized fiber. Although the cotton is not used finally in the form of a textile, it is generally obtained initially as rags or fabric cuttings.

In addition to the rigorous conditions of manufacture and application of cotton textiles for insulation purposes already referred to, most of the materials have to be subjected to treatment processes involving drying, varnish or compound impregnation, baking, etc., which impose further hardships on them. Heat treatments, employing circulated hot air or vacuum, are used for drying, usually at temperatures up to 105° C., and sometimes higher. Impregnation with oils, waxes, varnishes, bitumen, and other compounds are in general use, such treatments often being carried out at pressures up to 100 or 150 lb. per sq.in. It will be seen, from the foregoing, that cotton products for use in electrical apparatus are required to undergo severe conditions of heat, and other agencies, both in manufacture, application, and final service, thus it is imperative that in making, selecting, and using these goods, all concerned should give special attention to the particular requirements of electrical work.

Research is now being intensively directed to improving the resistance of cotton textiles to heat, moisture, fire, bacteria, and various electrical, mechanical, and chemical influences. This will undoubtedly improve their reliability, create more confidence in them and cause more extensive applications of these products in electrical fields. The more pressing and immediate problems are, however, the cultivation and selection of suitable fibers; the development of finishing processes which will render the cotton more moisture-resistant and able to withstand higher temperatures without undue stiffening and tendering; means of improving thermal conductivity and fireproofness without reduction of electrical and mechanical properties; reduction of the differences of mechanical strength in warp and filling directions to give greater uniformity of cloths; and the general improvement of fabrics required for varnishing, so as to enable more uniform and reliable varnished cloth insulations to be produced.

Day and Night Operation Makes Profit Unattainable

(Continued from page 19)

are not apparent, and as there is ample idle machinery to cover peak demand, it would be far better if overtime were discontinued in the mills which now make a practice of this policy, and if the inactive machinery were permitted to take up the slack.

This may appear rather altruistic, but if the present policy is maintained and increased, we are in for a longer period of stagnation in the future than that we have just experienced. Uniform hours of operation will bring better wages, better merchandise, more time to devote to creative efforts, improved methods, styles and profits. Never has the industry been in a better position than at present to take advantage of the business that is here, and from all indications will continue for some time. Old equipment has been scrapped. Wool prices are low. Labor has been reduced in comparison with other industries. Women's styles again favor wool fabrics, and no radical changes in men's apparel are threatening. Wool knitted products continue to hold their place, and the only thing that is retarding us is the operation of machinery now in place for more hours than the absorption of the products will permit.

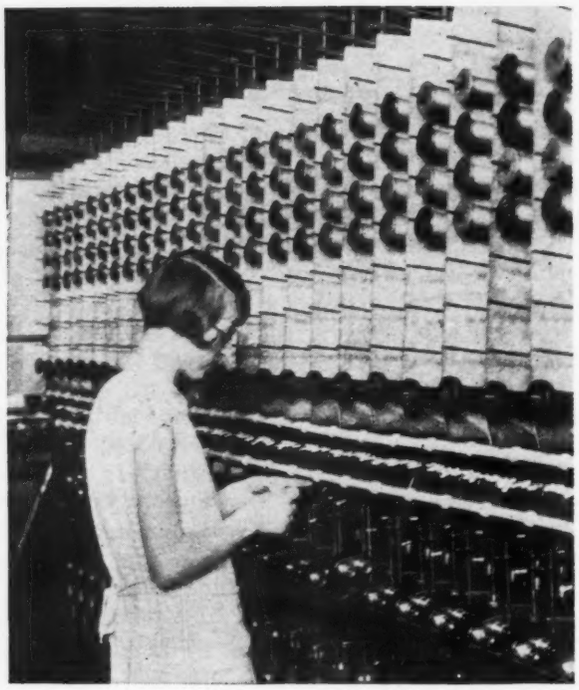
It would seem, with present demands approximately equal to a 45/48 hour per week basis with existing active machinery, that if we would acknowledge that the practice of night work is detrimental from all angles, and reduce our working hours to a maximum of 48 hours per week, we would be very close to that ideal condition of ten customers to ten units of production, whether yards of goods, or pounds of yarns, or at least eight units to ten customers which would be a vast improvement over the present relation. If this condition could be attained, it would eliminate many of the evils now prevalent, such as long terms, and other unethical practices which vanish in a sellers' market. The other evils would take care of themselves.

Many manufacturers have expressed themselves as favoring such a movement. It is believed that if an effort were made with the few who may be ignorant of the advantages of a change of this nature, it surely would be worth trying. If space permitted, detailed facts could be cited that would be sufficient to convince the most skeptical. Collective effort never harmed anyone. If there is an honest and determined desire to place this industry on a truly profitable basis, it must be done by concerted action very soon, or we shall lose what little is left of our savings earned during periods of sane manufacturing and merchandising methods.

Federal Bureau Studies

Wages and Hours of Labor

in Silk and Rayon Mills



MARKED variation in different States in wages and hours of labor in the manufacture of silk and rayon goods are disclosed by a study made by the U. S. Bureau of Labor Statistics. This study, which covers 49,036 wage earners in 340 representative mills engaged in the manufacture of silk, rayon, or mixed silk and rayon fabrics, reveals that in 1931 full-time hours for these employees averaged 50.7 per week; that they earned an average of 40.6c. per hour; and that their full-time earnings per week averaged $20.58. No comparison was made of figures obtained in this investigation and the cost of living in various States.

The study discloses further that average full-time hours per week for wage earners in all occupations in the industry in 1931 show a decrease of 7.1% since 1914, when the average was 54.6. During the same period the hourly earnings have more than doubled, rising from 19.7 to 40.6c. Average full-time earnings per week have not increased to quite the same extent as hourly earnings, due to the decrease in hours, but have risen from $10.79 in 1914 to $20.58 in 1931.

The investigation was limited to mills whose principal products were broad goods, dress goods, ribbons, linings, shirtings, satins, georgettes, pongees, crepes, taffetas, chiffons, and tie goods, made of silk and/or rayon. The number of wage earners included in the study is approximately 30% of the total in the industry.

Except for a very few mills, the 1931 hours and earnings of the wage earners were taken by agents of the bureau directly from the payrolls of the mills included in the study for one representative pay period in March, April, May, or June; and therefore reflect the conditions of the industry in those months. The length of pay periods varied in different mills from one to two weeks or more. Those of more than one week were converted by the bureau to a one-week basis. Earnings include wages at basic rates and any bonuses or premiums earned in the week covered in the study.

In Table I are given average full-time hours per week, earnings per hour, and full-time earnings per week in 1931 in each specified occupation in the industry, and also for a group designated in the table as "Other employees." The group includes all wage earners in

Table I—Average hours and earnings, 1931, by occupation and sex

Occupation	Sex	Number of Establishments	Number of Wage Earners	Average Full-Time Hours per Week	Average Earnings per Hour	Average Full-Time Earnings per Week
Winders, hard silk	Male	14	61	51.9	$0.267	$13.86
	Female	183	5,105	50.1	.293	14.68
Doublers	Male	6	52	58.9	.350	20.62
	Female	33	372	50.3	.287	14.44
Spinners	Male	109	1,794	54.2	.344	18.64
	Female	104	2,346	50.2	.289	14.51
Reelers	Male	6	19	46.8	.319	14.93
	Female	31	237	49.8	.287	14.29
Laborers, dye house	Male	13	464	52.0	.479	24.91
Winders, rayon	do	2	30	55.0	.375	20.63
	Female	23	372	52.5	.295	15.49
Winders, soft silk	Male	6	22	57.3	.319	18.28
	Female	126	1,554	49.2	.340	16.73
Redrawers	Male	13	63	52.7	.197	10.38
	Female	113	1,887	50.4	.243	12.25
Warpers	Male	166	993	51.1	.648	33.11
	Female	164	1,974	50.4	.476	23.99
Quillers	Male	62	299	54.2	.250	13.55
	Female	238	1,934	50.0	.265	13.25
Coners	Male	7	161	52.1	.323	16.83
	Female	18	528	50.4	.278	14.01
Enterers	Male	20	41	51.7	.414	21.40
	Female	73	376	50.8	.387	19.66
Enterer's helpers	Male	15	30	51.5	.246	12.67
	Female	39	154	50.8	.260	13.21
Twisters-in, hand	Male	145	407	49.7	.634	31.51
	Female	61	228	50.6	.428	21.66
Twisters-in, machine	Male	94	198	50.7	.615	31.18
	Female	40	97	51.5	.440	22.66
Loom fixers	Male	234	1,518	51.0	.746	38.05
Bobbin boys	do	88	460	51.4	.222	11.41
Weavers, broad silk	do	224	9,796	51.2	.499	25.55
	Female	203	5,904	49.6	.422	20.93
Weavers, ribbon	Male	15	332	47.3	.558	26.39
	Female	12	272	48.2	.444	21.40
Smash hands	Male	29	116	51.5	.536	27.60
	Female	9	16	52.1	.409	21.31
Pickers, cloth	Male	21	64	52.0	.260	13.52
	Female	183	1,062	49.8	.270	13.45
Inspectors, cloth	Male	68	160	51.1	.538	27.49
	Female	57	208	50.6	.327	16.55
Packers	Male	36	81	49.8	.355	17.68
	Female	23	70	49.5	.263	13.02
Other employees	Male	282	4,724	51.5	.434	22.35
	Female	208	2,455	50.0	.276	13.80
All employees	Male	340	21,885	51.5	.485	24.98
	Female	340	27,151	50.0	.335	16.75
All employees, male and female	.....	340	49,036	50.7	.406	20.58

Abstracted from December 1931 issue of the *Monthly Labor Review*, published by the U. S. Department of Labor, Bureau of Labor Statistics.

State	Number of Establishments	Number of Wage Earners	Average Full-Time Hours per Week	Average Earnings per Hour	Average Full-Time Earnings per Week
	Winders, soft silk, male				
Connecticut	1	*	*	*	*
Maryland					
Massachusetts					
New Jersey	1	5	49.5	$0.389	$19.28
New York					
N. Carolina					
Pennsylvania	2	9	64.7	.341	22.06
Rhode Island	1	*	*	*	*
South C., Ala., and Georgia					
Tennessee	1	4	55.0	.167	9.19
Virginia					
Total	6	22	57.3	$0.319	$18.28
	Winders, soft silk, female				
Connecticut	9	125	49.0	$0.364	$17.84
Maryland					
Massachusetts	4	28	47.7	.327	15.60
New Jersey	61	445	46.4	.409	18.98
New York	3	35	47.2	.390	18.41
N. Carolina	2	53	55.0	.308	16.94
Pennsylvania	36	715	50.5	.304	15.35
Rhode Island	6	117	48.9	.351	17.16
South C., Ala., and Georgia	2	7	55.0	.235	12.93
Tennessee	1	9	57.5	.196	11.27
Virginia	2	20	55.0	.174	9.57
Total	126	1,554	49.2	$0.340	$16.73
	Winders, hard silk, male				
Connecticut					
Maryland					
Massachusetts	1	*	*	*	*
New Jersey	1	15	44.0	$0.300	$13.20
New York	2	9	50.0	.400	20.00
N. Carolina	2	8	55.6	.197	10.95
Pennsylvania	6	9	53.3	.292	15.56
Rhode Island					
South C., Ala., and Georgia					
Tennessee	1	18	57.0	.205	11.69
Virginia	1	*	*	*	*
Total	14	61	51.9	$0.267	$13.86
	Winders, hard silk, female				
Connecticut	5	142	49.0	$0.375	$18.38
Maryland	2	140	50.0	.227	11.35
Massachusetts	6	158	48.0	.222	10.66
New Jersey	25	449	48.2	.344	16.58
New York	33	771	49.1	.337	16.55
N. Carolina	3	94	55.0	.273	15.02
Pennsylvania	92	3,034	50.3	.284	14.29
Rhode Island	9	111	51.9	.276	14.32
South C., Ala., and Georgia	1	19	57.5	.237	13.63
Tennessee	4	91	55.2	.168	9.27
Virginia	3	96	54.0	.238	12.85
Total	183	5,105	50.1	$0.293	$14.66
	Redrawers, male				
Connecticut	1	*	*	*	*
Maryland	1	*	*	*	*
Massachusetts					
New Jersey					
New York	1	3	50.0	$0.193	$9.65
North C.	1	*	*	*	*
Pennsylvania	8	54	52.6	.194	10.20
Rhode Island					
South C., Ala., and Georgia	1	3	57.5	.213	12.23
Tennessee					
Virginia					
Total	13	63	52.7	$0.197	$10.38
	Redrawers, female				
Connecticut	3	29	49.0	$0.331	$16.22
Maryland	3	61	50.0	.252	12.60
Massachusetts	4	33	47.2	.267	12.60
New Jersey	16	174	48.3	.269	12.99
New York	11	257	48.9	.270	13.20
North C.	1	*	*	*	*
Pennsylvania	64	1,215	50.9	.229	11.66
Rhode Island	3	21	48.8	.233	11.37
South C., Ala., and Georgia	2	14	57.1	.194	11.08
Tennessee	2	18	57.1	.187	10.68
Virginia	4	63	53.1	.281	14.92
Total	113	1,887	50.4	$0.243	$12.25
	Warpers, male				
Connecticut	8	34	51.7	$0.616	$31.85
Maryland	10	26	49.4	.613	30.28
Massachusetts	53	218	47.9	.893	42.77
New Jersey	21	125	51.1	.701	35.82
New York	5	50	55.2	.416	22.96
North C.	54	477	51.8	.588	30.46
Pennsylvania	9	23	50.9	.627	31.91
Rhode Island					
South C., Ala., and Georgia	1	6	57.5	.253	14.55
Tennessee	3	15	56.9	.361	20.54
Virginia	2	19	55.0	.299	16.45
Total	166	993	51.1	$0.648	$33.11
	Warpers, female				
Connecticut	9	135	50.6	$0.477	$24.14
Maryland	10	50	47.8	.497	23.76
Massachusetts	38	231	45.7	.545	24.91
New Jersey	15	58	48.6	.551	26.78
New York	5	128	55.0	.413	22.72
North C.	62	1,113	50.7	.465	23.58
Pennsylvania	14	163	49.4	.665	32.85
Rhode Island					
South C., Ala., and Georgia	3	27	56.7	.269	15.25
Tennessee	4	28	56.6	.174	9.85
Virginia	4	41	55.0	.334	18.37
Total	164	1,974	50.4	$0.476	$23.99
	Quillers, male				
Connecticut	3	12	54.1	$0.233	$12.61
Maryland	1	*	*	*	*
Massachusetts	6	25	52.6	.247	12.99
New Jersey	1	3	49.5	.285	14.11
New York	2	7	53.8	.258	13.88
North C.	3	31	55.5	.244	13.54
Pennsylvania	36	136	53.8	.256	13.77
Rhode Island	2	3	53.3	.327	17.45
South C., Ala., and Georgia	3	63	55.0	.224	12.32
Tennessee	2	9	57.1	.192	10.96
Virginia	3	9	55.0	.422	23.21
Total	62	299	54.2	$0.250	$13.55
	Quillers, female				
Connecticut	10	158	50.4	$0.314	$15.83
Maryland	1	*	*	*	*
Massachusetts	11	96	46.3	.193	8.94
New Jersey	76	316	46.3	.345	15.97
New York	24	129	48.4	.291	14.08
North C.	6	60	55.0	.238	13.09
Pennsylvania	84	906	50.4	.240	12.10
Rhode Island	15	94	50.1	.305	15.28
South C., Ala., and Georgia	3	91	55.3	.222	12.28
Tennessee	3	26	56.9	.154	8.76
Virginia	5	57	54.8	.275	15.07
Total	238	1,934	50.0	$0.265	$13.25
	Weavers, broad silk, male				
Connecticut	10	779	52.2	$0.517	$26.99
Maryland	12	477	50.4	.456	22.98
Massachusetts	70	1,669	47.9	.544	26.06
New Jersey	25	796	51.0	.496	25.30
New York	8	710	55.0	.474	26.07
North C.	70	3,964	51.7	.504	26.06
Pennsylvania	17	930	50.6	.534	27.02
Rhode Island					
South C., Ala., and Georgia	4	169	54.6	.325	17.75
Tennessee	4	101	56.5	.247	13.96
Virginia	4	201	52.7	.294	15.49
Total	224	9,796	51.2	$0.499	$25.55
	Weavers, broad silk, female				
Connecticut	10	486	49.0	$0.422	$20.68
Maryland	7	203	48.0	.360	17.28
Massachusetts	62	1,078	47.5	.493	23.42
New Jersey	23	528	47.3	.428	20.24
New York	6	76	55.0	.396	21.78
North C.	69	2,831	50.1	.411	20.59
Pennsylvania	13	351	49.4	.501	24.75
Rhode Island					
South C., Ala., and Georgia	5	108	55.4	.278	15.40
Tennessee	4	117	56.6	.221	12.51
Virginia	4	126	53.8	.319	17.16
Total	203	5,904	49.6	$0.422	$20.93
	Pickers, cloth, male				
Connecticut					
Maryland					
Massachusetts	1	*	*	*	*
New Jersey	3	6	44.0	$0.600	$26.40
New York	3	3	50.5	.449	22.67
North C.	1	*	*	*	*
Pennsylvania	11	46	53.1	.221	11.74
Rhode Island					
South C., Ala., and Georgia	1	4	50.0	.290	14.50
Tennessee					
Virginia	1	3	55.0	.165	9.08
Total	21	64	52.0	$0.260	$13.52
	Pickers, cloth, female				
Connecticut	9	74	49.7	$0.302	$15.01
Maryland					
Massachusetts	11	66	46.7	.229	10.69
New Jersey	47	193	46.2	.351	16.22
New York	24	124	49.0	.279	13.67
North C.	4	13	55.0	.238	13.09
Pennsylvania	62	442	51.1	.242	12.37
Rhode Island	14	85	49.3	.307	15.14
South C., Ala., and Georgia	4	16	55.0	.208	11.44
Tennessee	4	20	56.8	.151	8.58
Virginia	4	29	55.0	.165	9.08
Total	183	1,062	49.8	$0.270	$13.45
	Spinners, male				
Connecticut	3	49	53.4	$0.426	$22.75
Maryland	3	56	58.0	.323	18.73
Massachusetts	3	54	52.1	.282	14.69
New Jersey	17	162	51.5	.433	22.30
New York	11	202	54.9	.406	22.29
North C.	4	24	57.1	.295	16.84
Pennsylvania	59	1,117	54.2	.330	17.89
Rhode Island	3	32	53.5	.381	20.38
South C., Ala., and Georgia	1	6	57.5	.220	12.65
Tennessee	3	33	56.9	.172	9.79
Virginia	2	59	54.7	.275	15.04
Total	109	1,794	54.2	$0.344	$18.64
	Spinners, female				
Connecticut	3	64	48.2	$0.386	$18.61
Maryland	3	47	50.0	.246	12.30
Massachusetts	3	99	48.0	.184	8.83
New Jersey	20	208	47.9	.346	16.57
New York	12	415	48.8	.333	16.23
North C.	3	55	55.0	.271	14.91
Pennsylvania	54	1,314	50.6	.278	14.07
Rhode Island	1	4	48.0	.237	11.38
South C., Ala., and Georgia	1	12	57.5	.210	12.08
Tennessee	3	70	55.1	.192	10.58
Virginia	1	58	55.0	.265	14.58
Total	104	2,346	50.2	$0.289	$14.51
	Loom fixers, male				
Connecticut	10	138	49.6	$0.769	$38.14
Massachusetts	12	58	49.2	.767	37.74
New Jersey	73	210	47.1	.934	43.99
New York	29	126	49.4	.790	39.03
North C.	8	104	55.0	.564	31.02
Pennsylvania	73	672	51.9	.753	39.08
Rhode Island	16	104	50.3	.794	39.94
South C., Ala., and Georgia	5	46	54.7	.409	22.37
Tennessee	4	20	56.8	.399	22.66
Virginia	4	40	53.4	.499	26.65
Total	234	1,518	51.0	$0.746	$38.05

Note: * Less than 3 wage earners; data included in total

Table II—Variation in nine representative occupations in full-time hours per week, earnings per hour, and full-time earnings per week of wage earners in each state

other occupations, each too few in number to warrant separate tabulation as an occupation.

Average full-time hours per week for males at 46.8 for reelers were less and at 58.9 for doublers were more than the average for the wage earners of that sex in any of the other specified occupations in the table. Average full-time hours per week for females at 48.2 for ribbon weavers were less and at 52.5 for rayon winders were more than the average for the wage earners of that sex in any other specified occupation in the industry.

Average earnings per hour for males ranged in the various occupations from 19.7c. for redrawers to 74.6c. for loom fixers, and for females from 24.3c. for redrawers to 47.6 for warpers. Average full-time earnings per week for males ranged by occupations from $10.38 for redrawers to $38.05 for loom fixers, and for females ranged from $12.25 for redrawers to $23.99 for warpers.

In Table II are shown the variations in average full-time hours per week, average earnings per hour, and average full-time earnings per week of wage earners of each sex in nine of the most representative occupations in all states. It will be seen, for example, that in the case of hard-silk winders the average full-time hours range from 44 to 57.5 for females; average earnings per hour vary from 19.7 to 40c. for males and 16.8 to 37.5c. for females; and average full-time earnings run from $11.69 to $20 for males and $9.27 to $16.58 for females.

Ideas on Spinning Details

Exchanged by Cotton Overseers

SELF-WEIGHTED top middle rolls, rings and travelers, roller top clearers, oils, twists, sloughing, humidity, and long draft were included in the variety of topics discussed at the Spinning Overseers' Forum held under the auspices of the National Association of Cotton Manufacturers in Boston on Dec. 10. The report of the forum was released by the association this month.

An innovation introduced at this meeting consisted of two addresses by members of the machine-building industry. E. E. Blake, Saco-Lowell Shops, Boston, Mass,. reviewed the research activities of various textile associations, discussed metallurgical developments as they affect textile machinery, and explained the effect of ring diameter on spindle and traveler speeds. J. L. Truslow, Whitin Machine Works, Whitinsville, Mass., discussed the speed limitations of the traveler and called attention to investigations now being conducted to overcome them. He also discussed conditions in foreign mills and explained why certain European spinning developments are not applicable to American conditions without considerable modification. Both of these addresses were abstracted in last week's issue of TEXTILE WORLD.

Self-Weighted Top Rolls

In discussing self-weighted top middle rolls, one overseer stated that he is using metal rolls of this type throughout his department and that he sets them a distance from the front rolls which is much nearer the length of the staple than was the old setting. Another overseer reported that he is using the Washburn wooden rolls. "We found on numbers from 40s to 80s on $\frac{3}{1\frac{3}{16}}$-in. cotton," he said, "that about 1,200 grains gave us the best results. On $1\frac{1}{16}$-in. cotton we found that the Washburn roll was too light, so we made one by cutting down the regular roll that enabled us to get a closer setting and also gave a heavier weight than the Washburn roll. On this cotton we used a weight of 3,300 grains."

The question was raised as to whether a movable weight could be used "to compensate for the weight of the rolls on the different stocks being run." An overseer remarked that he has conducted some experiments on different weights, using the Richard Hines metal roll. "The roll," he said, "had a loose end so that we could screw it out. We used a rod for getting the weights and endeavored to find the best weights to use. We found we could get better results on different counts by using different weights of rolls. That is, on the coarser counts we could get better results with a heavier roll. On the finer counts a lighter roll proved preferable." He added that he did not think this procedure would be practical in a mill which frequently changed the stock and the weight of the yarn.

Controls Short Fibers

One of the machinery builders' representatives present at the meeting was requested to discuss self-weighted rolls. He replied as follows: "We build frames with self-weighted rolls when the mills desire them. Ordinarily we feel that with a light self-weighted roll of the Washburn type we should set as close as we can to the front roll. The theory of the self-weighted roll makes it necessary, in order to secure any advantage, to set within the staple length. Otherwise there is not any great advantage in using a self-weighted roll. The theory of course is that the self-weighted roll, through being set under the extreme length of staple, permits controlling the shorter fibers in the cotton to a certain degree. I think that on finer yarns the self-weighted roll is very common. We usually take a more or less rule-of-thumb division at a staple length of $1\frac{1}{8}$ in. For staples over $1\frac{1}{8}$ in., the self-weighted roll seems to give excellent results. On staples under that length, I have not heard quite such favorable reports."

"We have all self-weighted rolls," remarked another spinner. "Our stock runs from $\frac{15}{16}$ to 1 in. We are changing numbers frequently. Perhaps a frame will be on 9s today, 12s tomorrow, and $3\frac{1}{2}$s the next day. On account of our stock being short, we move the rolls right up tight. We get an inch setting." In reply to a question, he stated that he is getting a better breaking strength with the self-weighted roll, amounting, for example, to 3 lb. additional strength on 28s yarns.

In discussing coverings for self-weighted top middle rolls, the representative of one mill stated that he is using leather covering for some of his lighter rolls and no covering on his heavier metal rolls, the latter giving more bite. Another stated that on $1\frac{1}{16}$-in. cotton he is using a metal roll cut down from the manufacturer's dimensions without covering. He added that he is having no trouble with lapping.

Vertical and Mirror-Finish Rings

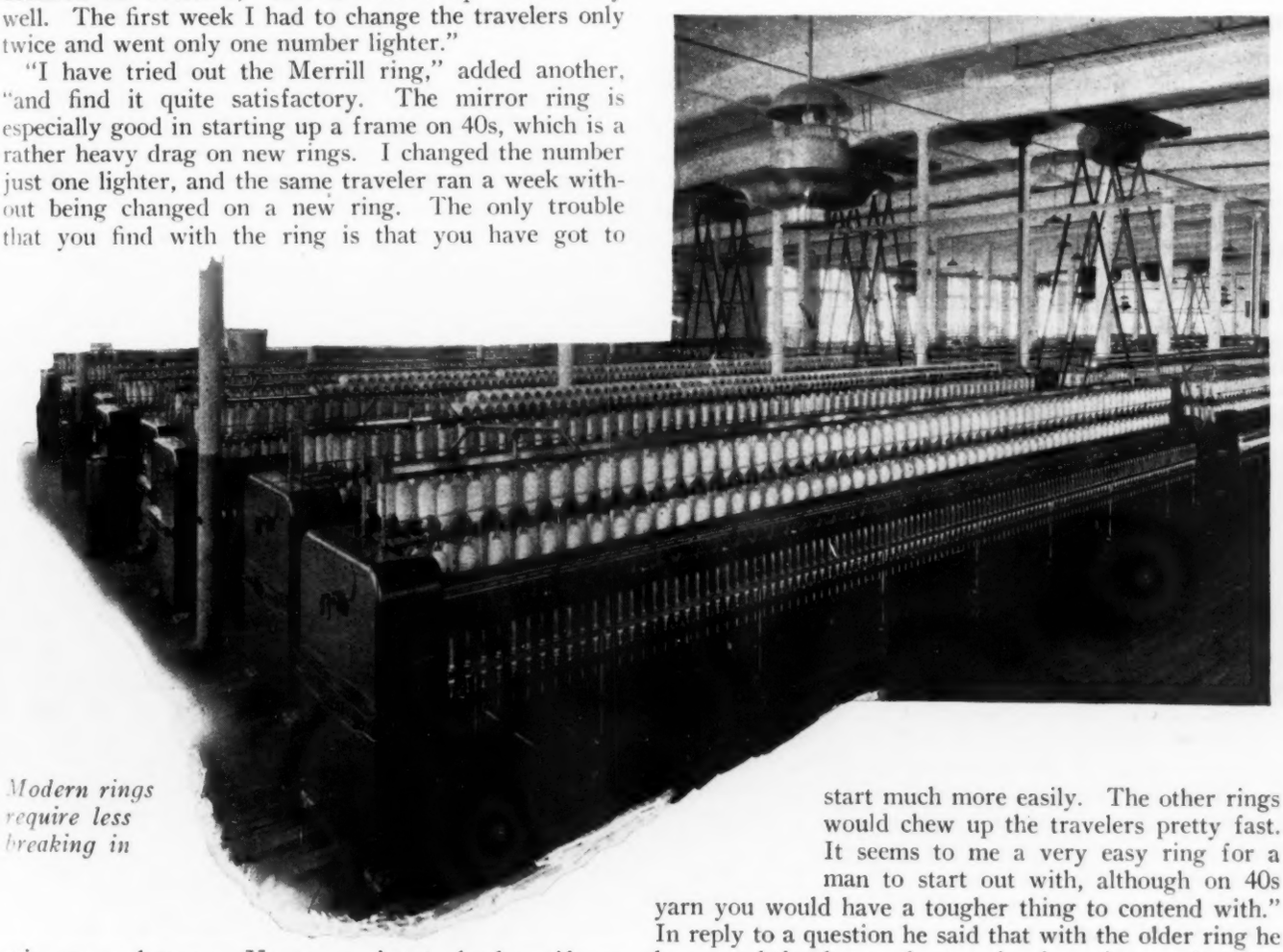
Vertical rings were the next subject for discussion. It was pointed out that these are employed in worsted spinning and twisting to a considerable extent and that for these purposes they reduce the amount of fly. It was reported that they are being used in silk and rayon twisting and that in these cases both the traveler and the ring have longer life. One overseer declared that he employs vertical rings in cotton twisting, but only experimentally thus far. He is employing white, stainless grease on the ring and finds that it reduces friction appreciably. It was stated that practically all of the new cotton twisters are equipped with vertical rings.

A question as to the value of "mirror-finished" rings disclosed that there was some confusion in the minds of the overseers as to the difference between these rings

and the Merrill type. This was cleared up by the representative of a machinery manufacturer, who offered the following explanation: "We make the so-called mirror ring, which implies a brightly polished ring corresponding to the diamond-finish ring. The mirror-finish ring is simply a more highly polished ring than has been put out before. The so-called Merrill ring is one with a round top. The latter is supposed to give more surface for the traveler to ride on and is supposed to last longer than the regular flange. As far as the mirror finish is concerned, I think all of the ring makers in the last few years have put this type of surface on their rings. I believe that what is intended by this question is whether a ring these days can be started up without changing travelers or possibly started up with perhaps a traveler which is a number or so lighter, thus obviating the necessity of going through a month or so breaking in the rings."

"I have a frame on the rings just spoken of now," declared on overseer, "and it started up wonderfully well. The first week I had to change the travelers only twice and went only one number lighter."

"I have tried out the Merrill ring," added another, "and find it quite satisfactory. The mirror ring is especially good in starting up a frame on 40s, which is a rather heavy drag on new rings. I changed the number just one lighter, and the same traveler ran a week without being changed on a new ring. The only trouble that you find with the ring is that you have got to raise your cleaners. You are going to load up if you do not do this. It is a very satisfactory ring to start up; and in fact it started so well that I wondered whether it was not too soft and would wear out. With what chance I have had to run it in about two years, however, I have found no sign of wearing. Whether the superiority of the ring is due to the shape or the smoothness, I do not know."



Modern rings require less breaking in

Another overseer was in favor of changing his travelers in the old way even with the new rings. "If a mill," he said, "were to start up today 5,000 spindles equipped with mirror-finish or diamond-finish or some other ring, and if at the same time it were to change travelers in the old way, it would find out that notwithstanding the unquestioned improvement in rings it would have obtained still more advantage by preserving the old-fashioned changing of travelers every hour on the first day and every two hours on the second day, etc. I have had the experience that notwithstanding the improvement in rings, the greater durability of rings and travelers, and the easy and satisfactory starting, there is still an advantage in the old method. Did you overlook the point that while the traveler started as well as the old way with the new ring, if you had gone through the long procedure of changing, you might have secured an even greater advantage?"

An overseer who is spinning 100s yarn declared that with a spindle speed of 7,000 r.p.m. he found it necessary for a time to change his travelers once a day on 1½-in. mirror rings, spinning filling with a traverse of 6½ in. "In less than two weeks," he said, "I could go all day. I noticed that the travelers were somewhat burned and sharp and were rather blue, but they would start much more easily. The other rings would chew up the travelers pretty fast. It seems to me a very easy ring for a man to start out with, although on 40s yarn you would have a tougher thing to contend with." In reply to a question he said that with the older ring he has seen help change the traveler four times a day.

Another factor bearing upon the problem was introduced by another spinner. "In talking about breaking in rings and the traveler speed," he said, "don't you think that the condition of the old ring ought to be considered? Many times you have a ring so worn that it is impossible to use the right travelers on it. I have seen rings with travelers two numbers too heavy on them because the old rings were so worn that they could not use the traveler which ought to be used." Another speaker agreed with this viewpoint.

For a time it appeared that the general consensus of opinion was that the new ring permits easier starting up. One man reported that he was able to use two

numbers lighter in his travelers, that they ran four days before he changed them the first time, and that they ran two weeks before he changed the next time, on that occasion going back to his old travelers. Another reported that he used only one number lighter when he adopted the new ring.

Then an opposite stand was taken by an overseer who declared that, although he "may have a peculiar organization" at his plant he has never been able with these new types of rings to start with any lighter traveler than with the so-called old ring. He suggested that it might be best to adopt the recommendation of a previous speaker to the effect that, even though it might be possible to get along with a ring or traveler that is one number or two lighter than before, it might be better to break in the rings in the old way. Another speaker concurred in this opinion and declared that, as the rings cost money as well as the travelers, it might prove more economical to break in the rings as before.

"I should like to take the opposite side on that," announced another speaker. "We have had 6,000 mirror rings running a long time. We put them on 90s and 100s filling. It is all right if you break them in the old way as long as you don't make bad work, but if you start them in the old way and you find your traveler three or four or six grains too light, and you make soft filling bobbins, you have got to work it the other way. I have nothing but a good word for doing it in the newer manner." The chairman asserted that in his experience the packages are too soft if the mirror rings are broken in with light travelers.

"A lot depends on the condition of the rings which you take out," suggested another overseer. "Perhaps we take our rings out a little oftener than other people, but our single-flange rings have been in use fifteen years and we have got pretty good wear from them. Our experience is the same as the previous speaker's. We have to do what we have always done. We make a hard bobbin, and we run pretty near the limit. If our filling gets a little soft, we hear from the weave room promptly."

A discussion of the "O" flange rings disclosed that few of the spinners present were familiar with these products. The ring was described as having a flange smaller than the No. 1 and suitable for spinning yarns from 120s to 200s. It is merely smaller across the top and is sometimes referred to as a half-flange ring. The theory of the "O" flange ring, according to one spinner, consists of running a traveler of smaller circle in order that for a given traveler weight a greater cross-section of the traveler is possible. The larger cross-section gives the traveler longer life as it does not burn off so quickly. According to the chairman, the accumulation of dirt as a result of using the traveler with a smaller circle can be overcome by raising the cleaners. One spinner declared that for some reason or other he has not had good results with the "O" flange ring, although he is informed that a number of others have had good luck with it.

Roller Top Clearers

In response to a request from the chairman for a discussion of the relative advantages of roller top clearers and flat clearers, one overseer described his experiences as follows: "We changed over to get a longer draft and found we had to spread the rollers. Spreading the rollers opened up the distance between the front and middle top rolls; and as the waste collected on the board clearers, it dropped down between the rolls. We had to have the cleaner go around about once an hour to clean the boards off. Therefore we put on roller clearers. We clean them only once a week. We succeeded in bringing our end breakage down in that particular case from about 50 to about 30. At the same time it lightened up the cleaner's work. In other words, the cleaner may be given more work to do on other matters. It is not necessary to go around two or three times in the morning or afternoon to clean the boards. On the new spinning, which is long draft, we have a board back clearer and a roller front clearer."

Another spinner offered the following: "We have nearly all roller clearers on our spinning, and I should say about half of them are run from the middle roll at slow speed. This allows the front rolls to be wiped in good shape. On the frames running from the middle roll we do not find any dust collected in the flutes of the front roll, whereas we do where they are running from the front roll. In that case the dust collects in the flutes and clogs them. It looks like putty stuck in there." In answer to a question, he stated that he does not have a guide on the back cap bar to hold the roll back on the middle roll. "We made a casting," he explained, "and screwed it right on to the cap bar. We took the cap bar off and cut off the lip that holds the flat board and put on an adjustable new one. We can move it up or down."

Another overseer declared that, although he believes the roller clearer is the most efficient from the theoretical viewpoint, there are certain cases in which the flat clearers are more advantageous, and he is using them upon all of his long-draft spinning.

A user of the roller clearers was asked whether at the end of the week he finds any waste slipping off. He replied that he does not and expressed the opinion that this condition is governed to a considerable extent by the weight being carried; i.e., the weight of the roller itself. "If the roll is too small and too light," he explained, "it will not accumulate so much. It gets soft and you have to clean it oftener."

In reply to a question from the chairman as to whether it would be practical to run the clearer from the second roll rather than from the first on long-draft spinning, a spinner replied, "It would not be practical on the long-draft system because the space is too great, so that you would not touch the front roll. You have a cradle there on the Casablancas, and on the Saco-Lowell you have a little small roll between the old middle and the front roll, so that you would miss the front roll altogether." The chairman suggested that it could be adjusted. Another overseer remarked that if the roller clearer is run on the front roll, very little friction is obtained on the front roll; but if it is in contact with the back and middle rolls, friction is obtained. The clearer is slowed down and the front roll is cleaned. Still another expressed the opinion that the top roll can be cleaned if the revolving clearer is sufficiently heavy.

"We have found, or think we have found," declared one overseer, "that on coarse work the ideal clearer equipment is what we know as the combination clearer, which consists of a revolving top clearer for the top roll where most of the lint is made and a stationary or flat clearer for the two back lines of rolls. With the ordinary type of roll covering, more lap-ups occur with the revolving clearer on the front roll than with the flat clearer. If calf or cork is used, apparently this is not serious; but in the case of sheep-covered rolls, we find

that the lap-ups on fine work, particularly with long draft, are very apt to give trouble. Therefore, on the finer counts we are more likely to use the stationary clearer."

Spinning Room Oils

In discussing the oils employed in the spinning room, the chairman offered the following information: "I am using four different kinds of oil on the spinning frame. I am using a regular spindle oil for the spindle. I am using a mixture of engine oil and machine oil for the top rolls, which we find equivalent to the so-called slow-flow oil, and which is less expensive. It does not spread to the leather or cork, and it remains moist. The regular machine oil is used on bearings, gears, etc. In addition to these three I have another. Possibly you have not had this difficulty, but we had trouble in putting new rods in on our rails, new bushings, etc. We got a certain amount of sticking, and then somebody thought of the idea of using lard oil. Therefore we used lard oil on our lifting rods, and our trouble was entirely done away with. It takes the dirt out of the bushings and keeps it out. If there is trouble with sticking bushings, this oil will eat the lint and dirt out so fast that the spinner will wonder if the bushings are not being worn. It remains moist." In reply to a question, the chairman said that he does not get a discoloration on his yarn from the mixture of engine oil. It is very heavy, he said, and stays where it is put.

One speaker stated that he is using three kinds of oil—spindle oil, machine oil, and a non-fluid oil for the top rolls. When his department is running night and day, he oils the top rolls five times a week. When he is running only days, he oils them three times a week. Another uses only a spindle oil and a so-called non-fluid oil, and he remarked that the non-fluid oil is "fluid enough" if too much is put on. "With regard to the spindle oil," he said, "we try to cover the room every three weeks. About once a year I insert in the spindles straight kerosene oil and then follow it right up with spindle oil within a week."

In discussing the frequency with which it is desirable to oil spindles, one overseer remarked that possibly experiments would show that it is not necessary to oil the bolster of a spindle running 9,200 r.p.m. more often than once every two months. Another, who had had difficulty from pumping and spraying of the spindle oil, stated that he has adopted a heavier oil and that now his engineer informs him that the spindle uses too much horsepower.

An interesting experiment was described by one speaker. "We oiled one side as much as the bolster would contain," he said, "and on the other side we merely squirted one charge from a thumb pressure can into the base. After three weeks of running we emptied the bolsters and the bases and found that we had just as much oil on one side as on the other.

"We use English spindles," said another overseer, "and we have a method of oiling them once a year and scouring them every three years. That means cleaning them out and putting fresh oil in. After the year's end, we find that we have about one-third of the oil left. I think it is a safe rule with that type of spindle to oil every year. We do not have any bad spindles as a result. We also have American spindles which we have to oil every three months. On the English spindle we fill it up with oil to the top, put the spindle back in, and then run for about half an hour, during which the overflow comes out. This amounts to about one-third of the oil put in. We then run that way for one year without danger. We have been doing that for several years.

"Our oiling man has a gauge which he puts in the spindle base that takes the same step as though he put the spindle back in. He has a cup which catches all the overflow, so he is still saving his oil. He then knows just how much the spindle should take. We use only two types of oil, the spindle and the machine oil."

In reply to a question the last speaker stated that he uses the machine oil on his top rolls, which are shell, and finds that it does not dry out rapidly, it being necessary to oil these parts only once every two weeks. Another overseer described an oil can which measures the oil applied and prevents excessive lubrication.

Changing Travelers

In discussing the frequency for changing travelers, one spinner stated that on his warp yarn this is done once every three running weeks; and on his filling yarn, once every four weeks. The work is done by third hands on their own sections. The cleaners break off the travelers for them. Another spinner, running counts from 32s up to 100s has his travelers changed once every thirteen weeks by a cleaning squad, the spinners replacing travelers as the breaks occur.

One spinner estimated that a traveler for 28s warp operating under a spindle speed of 9,000 r.p.m. will last about three and one-half weeks. Another stated that he would change such travelers every three weeks.

"It has been my experience," remarked an overseer, "that where the spinners are allowed to change their own travelers, it is expensive. They are apt to change too often. If they get it into their heads that the work is not going well, the first thing they think of is the traveler."

"We kept a record of the travelers that we used for one year," declared another, "and comparing that with the number of spindles, we found that the travelers lasted just two weeks. Therefore, if you are changing every three weeks, you are knocking off a lot of new ones. We have a system of changing the travelers on so many frames a week so as to get around once in four weeks."

"We are running end-breakage studies all the time," said another. "We were changing our warp travelers every two weeks on one floor and every three weeks on another floor which used a higher spindle speed. Later we standardized on three weeks, and we did not find that it made a bit of difference. That is, our end breakage was below the standard that we set, and it seems to me that that is the principal thing to consider."

Another overseer stated that on yarn running from 9s to 90s, he changes every five weeks as a rule and gets very good results without many travelers burning off.

The morning session of this interesting forum was concluded at this point. A report of the afternoon session, also of unusual interest, will be published in an early issue of TEXTILE WORLD.

Overseers' Round-Table

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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Enforcement of Rules

Editor, Overseers' Round-Table:

RULES OR regulations, should be strictly enforced without partiality.

To be fair and square to all employees a warning for the first offender should be given by personal interview, for a second offense, punished with a lay-off of at least one month, for the third offense of the same violator, permanent discontinuation of employment.

Any honest and sensible employee would take such a warning as a lesson for the future and avoid any violation of mill regulations.

Furthermore, mill properties should not be carried outside without permission of superiors. Honest, or at least sensible people, ask for what they need. P. H. EGGENBERGER.

Editor, Overseers' Round-Table:

IN STATING the penalties to which a man is liable for breaking any of the rules of the mill the management should always reserve the right to judge on circumstances, and not to enforce when it is contrary to the interests of the company.

For example, the rule might be that anyone failing to punch the clock on arriving at the mill would be dismissed. It might happen that the omission be made by a "key" man, whose knowledge and experience makes him practically indispensable to the firm. To enforce a rule like that would be most unbusiness-like.

Possibly the man may be one of the rare ones who arrive at work 15 or 20 minutes before time and entering alone with thoughts on work, is likely to walk involuntarily straight to his machine, and so fail to register in the prescribed manner. Without doubt every member of the crowd who usually arrive at the last moment, would instinctively join the long "line up" to punch the clock. To impose any penalty on the early arrival who forgot would be punishing him for arriving early, instead of encouraging such a good habit.

Rules could read that those not observing same would be liable to dismissal, a "lay off," or a fine. When a company benefits by fines it usually arouses considerable feeling among the employees. I would suggest that all fines be handed on

Talking About the

"ONE thing I'd like to know," Superintendent Chase grinned as he addressed the overseers, "is what kind of a boss you men would like to work under. Would you rather work under a man who knows his manufacturing from A to Z or would you prefer a boss who presumes that you have the technical knowledge and just directs things in general? As I'm sort of half way between the two I know you men won't hesitate to express your frank opinions."

"Give me every time," said Bill, "the boss who knows his onions. If the super or manager has been through the mill he speaks your language. You can go up to him with a proposition that if you change this or that you'll get better results and he'll look the plan over and tell you whether or not he thinks it will work. Even if he doesn't think it will work at first you have a chance to argue with him and, as a result of the conversation, decide whether or not you are right. It helps an overseer a lot to have someone he can go to who understands things. Often you haven't things quite clear in your own mind, but if you talk it over with someone who understands the problem you get a pretty sound picture. The trouble with these birds who don't know their manufacturing is that they are always coming around with some wild scheme and telling you that you ought to put it into effect. Most times such schemes simply don't work. If you try and explain to the boss that the idea won't work he is liable to think that you are one of the old mossbacks who won't consider anything in the nature of a change. I want progress as much as the next man, and I'm perfectly willing to try anything that is within reason, but I'd a lot rather work with a boss who knows what it is all about and who makes suggestions, and listens to your suggestions, with an idea of what it is all about."

"As usual," Pete was the next to speak, "I find myself disagreeing with Bill. I'd a lot rather work under a man who has a broad, general knowledge of business than one who knows every detail of manufacturing. The man who knows all about

Boss Himself

the problems of my job is too inclined to run the whole mill according to his own ideas. He really doesn't get any benefit from the thinking his overseers do because he has definite opinions of his own and guides things accordingly. The man without a very definite knowledge of manufacturing details, but who has good business sense, is much more inclined to let his overseers run their end of the business. If you go up to him with a proposed change he will let you know whether or not he thinks it is sound in general. After that it is up to you to decide just what you are going to do. I'll admit that working under a man who doesn't know all of what you are up against requires a better type of overseer, but I think that that in itself is a fine thing. Too many manufacturers don't get any real benefit from their overseers. After all, the good overseer is a specialist and the more he is left to work out his own problems the better it is for the company."

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Would *you* rather work under a super or manager who knows all the details of manufacturing or one who doesn't?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

to some fund of the employees such as their sick benefit club etc. I know of one plant where fines form the nucleus of a fund from which flowers, fruit or cigarettes are provided for sending to those of the employees who are sick. The combined fines might also be distributed, share and share, at Christmas or the summer vacation.

Rules should be rules, and should mean what they say. I have often been amused when visiting a certain plant, to see an unusually large notice on a door—"Keep out! This means *You!*," and yet there is a constant stream of employees passing through, just as if there was a sign—"Welcome to all!."

ALFRED C. LAYZELL.

Editor, Overseers' Round-Table:

PETE IS right, strict enforcement of a rule may sometimes be pretty hard on certain individuals—but what is the use to have a rule if you do not enforce it?

I, for one, believe that the employee known as the old-timer feels that he has a life-time position for the reason that he has worked for the company for the past 15 years or longer. He feels that he can take more privileges than the employees who have only served for a year or two—and he takes them. For instance, if an old-timer and a new man should be working on a pipe line where the new man will take all precautions to save connection unions, etc., the old timer, if he is not closely watched, will take his hammer and break an "L" or a "T" and actually get by with it. I believe the old-timer will stand more watching than the new man for he will do things the new man may get credit for.

I believe in making a rule and then have the overseer enforce it. If any favors are shown, show them to the new man for he may unknowingly break a rule.

When an old-timer breaks a rule it is done in defiance because he is an old-timer and can get by with it. I for one believe that the old-timer who will deliberately break a rule should be paid up at once, for if he gets by with it the company eventually will have to make a new rule to keep from enforcing the old one.

WITH A BROKEN HAND.

Editor, Overseers' Round-Table:

WHAT IS the sense of making rules if they are not going to be enforced?

Before drafting any rules and regulations, care should be taken that no rules are included that cannot be strictly enforced and that are of the elastic type.

Take the case of the old-timer borrowing the lamp for instance: He knew the rule, but like hundreds more of the same type to be found in manufacturing plants the world over, ignored the rule. He knew that if he had explained the situation to his overseer and asked for the loan of the bulb, the chances are his request would have been granted. Overseers are not the bullies some would like to make them appear.

While the punishment would have seemed harsh, rules are rules.

No overseer can afford to play favorites. And that is what it will become when you start stretching a rule.

OVERSEER OF WEAVING.

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Summary of Discussion on Applying Rules

A trifle over 55 per cent of the contributors agreed with Bill that rules should be applied in a flexible manner according to the circumstances. The remaining 45 per cent stated that the only fair thing to do was to apply rules in a uniform manner regardless of the circumstances.

Underwear Association Dramatizes Folly of Price Emphasis

THE Associated Knit Underwear Manufacturers of America are making a very practical and potentially effective contribution to the campaign against undue emphasis on price. The association has drafted six letters which will go out to a mailing list of 30,000 retailers at intervals of approximately a week apart from now into April. These letters dramatize the folly of price emphasis and the possible returns from a switch to a quality appeal.

The letters, which are being sent out by the Retail Group of the organization, are especially noteworthy for their brevity and their human interest. Each follows a particular metaphor consistently. The following titles of the letter indicate their character: "The Big Toe Touches Bottom"; "New Tonic Needed"; "Stop Racing Down a Dead-End Street"; "Act II—Scene I"; "Are You Price Drunk?"; "Allaying and Unhealthy Flush."

Here are a few extracts from these different appeals:

✦ "Having played the price drama to an anti-climax, the next move must necessarily be in the direction of quality—quality at a consistent price. New words and music are essential if the show is to go on."

✦ "Consumers are frugal—and the frugal are seldom foolish. That is why the star dust and fiddlesticks formula of the price-cutting debacle has petered out."

✦ "The retailer wants to feel the ground firm under his feet. The manufacturer craves to escape that jittery feeling that comes with uncertainty and to give his accounts the fullest cooperation, which he cannot do when an insistent voice demands only goods to sell at sub-depression levels."

✦ "The girl with the shoddy hosiery wears a blush under her make-up. The man with the shapeless, lattice-work underwear knows today that he cannot buy something for nothing."

✦ "When the knit goods buyer reaches a point where he cannot cut prices any more, he is price drunk and off to the infirmary he must go."

✦ "For more than two years the battle cry in knit goods business has been: Give us something to sell at a price. Today the plea is: Give us something that will overcome price."

▸ Rapid Transportation Vital to New England

Much thought should be given to the railroad controversy, Clemens J. France, director of the industrial development department of the Providence (R. I.) Chamber of Commerce told the Southern New England Textile Club at its 49th meeting, last month.

Mr. France declared that if the textile industry is to prosper in New England "it will do so primarily by virtue of a transport service, by a nationwide delivery system that will overcome time and distance and so literally move New England nearer to the source of her fuel, her raw materials, her food on the one hand and, more vital still, move the New England textile industry to the great consuming markets of the United States, of Canada and foreign countries."

The principal needs of the industry, Mr. France said, are more efficient contact with the great consumer markets and a continual and rapid expansion of markets. He concluded with a plea for support of the "Rhode Island plan" as opposed to the "all New England terminal railroad plan." Under the former, the Chesapeake & Ohio-Nickel Plate system would be permitted to enter New England and the Pennsylvania would be given control of the New Haven Railroad, but completely divorced from the Boston & Maine.

"But of Course Textiles Are Different. . . ."

Blue coal—another example of a product that "couldn't" be trademarked to the consumer.

▸ Wool Marketing Corp. Ready for New Season

Sol Mayer of San Angelo, Texas, president of the National Wool Marketing Corp., which marketed about 30% of the nation's wool clip last year, announced that the executive committee of that organization, which has been meeting in Boston and Washington for the last three weeks has made final arrangements for the 1932 business and that the corporation is now making presheering advances and are prepared to handle the 1932 wool clip for the best interest of the producer.

Mr. Mayer also announced that L. W. Elliott, of Sonora, Texas, a member of the Executive Committee had been elected to the position of executive vice-president in charge of all operations, and that Mr. Elliott will remain in Boston during the next few months.

▸ Nashua Opens Blankets

Nashua (N. H.) Mfg. Co., opened its new line of blankets, including all wool, silk and wool part-wool and staple numbers, on Feb. 17 in its New York showrooms. The new products represent the improvements developed through the last year and show how the mills have adapted colors to the latest trends in home decorating.

Nassac and Nassonac, the all-wool blankets, which were first introduced in 1931, are in new pastel shades. The former is plain with a 4-in. silk binding and comes in blue, pink, green, gold and orchid and in sixes 66x80, 70x80 and 70x84. Nassonac is reversible with color combinations of blue and gold, orchid and green, rose and green, orchid and gold and sizes are same as the Nassac.

The Sworma is the 1932 feature, a new silk and wool blanket in pastel shades of rose, green, blue, orchid, peach and tan. The size being featured is 90 in. long but it also comes in the 84 and 80 in. lengths.

The part-wool blankets come in plain colors, plains, printed Indian patterns and reversibles. Plains and plaids are sold under names Hometex, Strongtex and Nashua. Cossack is the reversible in the part-wool line.

▸ Canada's Hosiery Employment Increases

The Silk Association of Canada, Toronto, Can., has issued a bulletin stating that a substantial increase in employment in the full-fashioned hosiery mills in Canada in 1931 over 1930 is indicated by comparative production and sales figures. In 17 out of 21 mills in Canada for the 9 months ending November a production increase of 1,148,600 pairs over the same period in 1930, is reported. The figures for hosiery shipped over the same period are—1931, 9,948,360 pairs; 1930, 8,789,156. All full-fashioned hosiery now used in Canada is produced in the Dominion. All other classes of silk hosiery, men's and women's amounted to only 49,392 pairs. As Canada was machined to supply all requirements in normal times there was no machinery expansion in 1931.

▸ Textile Exposition and Style Show at N. C. College

At the regular meeting of the Tompkins Textile Society, the Textile students of North Carolina State College elected officers and initiated plans for their 1932 Textile Exposition and Style Show. This annual event will be held at the Textile School in Raleigh on April 15.

It was announced at the meeting that five colleges had accepted the invitation to participate in the Style Show, and that 71 young women representing Catawba, Louisberg, Meredith, Peace, and Queens-Chicora Colleges would wear garments which they have made, as a part of their classwork in home economics, from fabrics designed and woven by the textile students.

Walter C. Taylor, a graduate of the Textile School, who is secretary-treasurer of the Southern Textile Association, advises that the Eastern Carolina Section of this association will probably

Jack Card Gets a Letter

Dear Jack Card;

It seems to me the answers to your friends' problems are right in that Annual Review and Forecast Number. One trouble with "the trade" is that all "the tumult and the shouting" about FASHION has died. It shows in advertising. It seems as if all the stores are trying to sell anything they are stuck with for half what they used to charge.

Merchants spent a couple of decades educating the buying power to consider style, *style*, STYLE, regardless of price. They overdid it and then probably fired the expensive "stylists" first off at the crash. Now the merchants are helpless and without the fancy pilots are reverting to bargain-counter methods and insulting the intelligence of the public so assiduously educated to style. They succeeded once. "Nothing succeeds like success." Why don't they try it again? Or have they forgotten what Barnum said about the American people?

Now you say something!

JILL LINTERS

hold its semi-annual meeting in the school on the morning of April 15, so that its members can attend the Textile Exposition and Style Show that afternoon.

The officers elected by the Textile students were as follows:

Superintendent, J. B. Lamar, Spray, N. C.; assistant superintendent, C. N. Cone, Greensboro, N. C.; foreman of yarn manufacture, E. W. Crow, Mocksville, N. C.; assistant foreman of yarn manufacture, A. H. Willis, Raleigh; foreman of weaving, N. R. Whitener, Gastonia, N. C.; assistant foreman of weaving, J. A. Duncan, Raleigh; foreman of knitting, E. W. Freeze, Jr., High Point, N. C.; assistant foreman of knitting, Wilson Adams, McColl, S. C.; foreman of designing, M. A. Law, Paw Creek, N. C.; assistant foreman of designing, J. L. Padgett, Cliffside, N. C.; foreman of dyeing, J. E. Gill, Henderson, N. C.; assistant foreman of dyeing, K. A. Bridges, Griffin, Ga.; publicity director, J. Y. Bass, Birmingham, Ala.

▸ Cotton Freights Before Commission on April 5

Proper relationships between freight rates from the South and New England to competitive markets and reasonable rates for all kinds of cotton goods produced in this section of the country will be sought by representatives of New England mills at the hearings before the Interstate Commerce Commission which open April 5. Testimony will be given by mill executives, traffic experts and other representatives of the manufacturers in the course of these sessions to be conducted to settle controversies regarding the proper levels and relationship of freight rates on cotton textiles. The proceeding will be the first case in which the entire rate structure on cotton textiles will have been before the Commission, according to F. Manley Ives, counsel for the National Association of Cotton Manufacturers which is leading the fight with the cooperation of similar organizations throughout New England and in New York State.

"The case involves the rates from New England to New York City which have long been on a commodity basis but which certain carriers in New England are now seeking to have increased," Mr. Ives declared. "The problem created by the existence of truck rates to New York City, which for the haul over the highways the entire distance or partly on the highways and partly in connection with unregulated boat lines, are much lower than the proposed rates, will be considered and have an immediate bearing on the issues.

"New England seeks a more favorable rate relationship with the South. Southern mills have enjoyed much more favorable rates to the important markets in the Middle West for a long time. These rates were intentionally made on a low relative basis to encourage the Southern manufacturers at a time when the mills in the South might have been described as an infant industry. They no longer need fostering."

Mills Divided on Effect of Woolworth 20c. Merchandise

OPINION among textile manufacturers regarding the decision of F. W. Woolworth & Co., to add a 20c. line to their traditional 5 and 10c. merchandise, varied according to their individual fields. Concern, not to say alarm, is felt among some knitters of extremely low-priced rayon goods, especially rayon underwear. Acute competition is expected, and union leaders see the step as possibly forcing rayon underwear mills to cut their wages further. However, if the current agitation toward establishing higher standards for rayon underwear, crystallizes in concrete action, mills selling garments to retail at 50c. or even 40c. would be helped considerably.

The Woolworth decision may react upon a wide range of textiles. Already this chain organization enjoys a large ribbon business, and a very considerable cotton piece goods volume. Some converters welcome the news, as promising quicker and more profitable turnover in wash fabrics. It is pointed out that wash fabrics retailing at 10 to 19c. per yard form a substantial part of retail business in smaller cities. Some observers suggested the possibility that eventually Woolworth may broaden its price range further, say to 40 c. while a few envision the Woolworth of the future as selling from 5c. to $1.00.

The low-priced knit goods industry may be decisively affected by the move. Hosiery prices tend steadily downward, and women's seamless silk hosiery can be seen in the chain store picture; to include that line, Woolworth might adopt the method of selling each stocking separately, as has been done with some types of rayon hosiery and as is done in their restaurants on particular food items. Numerous mills expect the step to stimulate mass production of lightweight cotton pullovers, rayon shirts and shorts and other lines.

While a trade-down trend in the cheaper rayon knit goods will be an inevitable result, the decision may help the better qualities of rayons by widening the division between the grades. Manufacturers of high-grade rayon merchandise do not regard the Woolworth action as affecting their outlets materially. Further emphasis on quality would help to clarify the situation and such synthetic yarn fabrics as the better flat crepes, satins, and sheers should be benefitted rather than hurt by the downward pressure on the low-priced lines.

▸ Throwsters Research Institute Opens N. Y. Offices

Plans for the organization of the Throwsters Research Institute, under way for some time, have been practically completed, and the institute has opened temporary offices at 468 Fourth Ave., New York City. Announcement to this effect was made by John D. Dunlop, president of the institute.

Dean Hill, for several years in charge of the Klotz Throwing Co., has resigned from that organization to act as executive secretary of the institute.

Sixty throwsters and thrown silk dealers are members of the new group, this number representing 75% of the spindles in the United States, it was stated.

The Throwsters Research Institute will be directed by a board of governors, which includes John D. Dunlop, president of Jno. Dunlop's Sons, Inc.; Sidney R. Bliss, of the Bliss Silk Throwing Co.; A. J. Pfeiffer, president of the Pfeiffer Silk Corp; Charles Raine, of the Frisbie Throwing Co.; John Salandi, Jr., of the Vulcan Silk Co.; Charles Baer, of the Baer Co.; Nathan Lewis, of Kahn & Feldman; A. G. Schautz, of Grove Silk Co.; H. J. Tynan, of the Tynan Throwing Co.; and Phillip Berliner, of the Paterson firm bearing his name.

▸ A.C.M.A. Convention Scheduled For May 20-21

The annual convention of the American Cotton Manufacturers Association will be held at the Atlanta-Biltmore Hotel, Atlanta, Ga., May 20-21, according to W. M. McLaurine, Charlotte, N. C., secretary of the association. The meeting was originally scheduled for the last part of April but circumstances made it advisable to postpone the convention until the above dates in May.

NEWS about MEN

Weston Howland, treasurer of Warwick Mills, West Warwick, R. I., will be associated with **Col. G. Edward Buxton,** who has just become president of the Insull group of mills at Lewiston, Augusta, and Saco, Maine. This new association will in no way affect Mr. Howland's connection with Wellington, Sears & Co., Boston, of which he is a director. It is understood that Col. Buxton's affiliation with these mills does not affect the present management but ties up the selling end of the various companies. **George E. Spofford,** Augusta, Me., continues as treasurer.

John H. C. Church, president and treasurer of the Monument Mills, Housatonic, Mass., has retired after 38 years with the company. He has been succeeded by **T. E. Ramsdell,** former vice-president. **J. I. Connan** and **Frederick M. Myers,** attorneys of Pittsfield, Mass., have been elected to the board of directors.

F. A. Powdrell, treasurer of Powdrell & Alexander, Inc., Danielson, Conn., has accepted the presidency of James A. Hearn & Son, New York department store. He is also president of the McLellan Stores Co., and vice-president and treasurer of the W. T. Grant Co. Mr. Powdrell was until recently a vice-president of Montgomery Ward & Co.

Col. James C. Black has become vice-president and treasurer of the Waypoyset Mfg. Co., Central Falls, R. I. He has been with the company for several years, prior to which he was a member of the cloth brokerage firm of Pray, Day, Black & Reilly, New York. **George W. Eberhardt,** former superintendent, has become vice-president in charge of operations. Other officers of the company are: **F. W. Easton,** president, **Emanuel Weill,** a vice-president, **Alfred Sedgewick,** secretary, and **Ernest R. Haswell,** assistant treasurer. Directors are: **Oliver Iselin, Jarvis Cromwell, S. Robert Glassford, Philip Y. DeNormandie, Richard Hart, F. W. Easton, James C. Black** and **Emanuel Weill.**

W. Ray Bell, formerly vice-president of the Cotton Textile Institute, and who recently succeeded **Perry S. Newell** as secretary of the Association of Cotton Textile Merchants of New York, has also been elected treasurer of the Textile Export Association of the United States. He serves for the ensuing year, replacing Mr. Newell who has resigned because of ill health.

H. S. Adams, formerly secretary and treasurer, Eureka Cotton Mills, Chester, S. C., has been elected assistant treasurer of the Aragon-Baldwin Cotton Mills, with offices in Chester. Mr. Adams is also a director of the Aragon-Baldwin Cotton Mills.

Philip S. Ripley, who has served as chemist for the American Woolen Co. for many years, has become associated with **Raymond S. Bartlett & Associates,** consulting textile engineers, specializing on the woolen and worsted industry, at Boston. Mr. Ripley, was chemist at the Assabet Mills, Wood Worsted Mills, and was also head chemist of the company from which he resigned about a year ago. Raymond S. Bartlett & Associates, new office is at 10 Post Office Square, Boston.

Edwin E. Ford, sales representative, has been elected vice-president of the Chautauqua Worsted Mills, Jamestown, N. Y.

John B. Hope, superintendent of the Aragon plant of the Aragon-Baldwin Cotton Mills, Inc., Rock Hill, S. C., has resigned. His future plans have not been announced.

Arthur S. Jarrett recently resigned as superintendent of Chadwick-Hoskins Co., Plant No. 3, Charlotte, N. C., to accept a similar position with the Aragon-Baldwin Cotton Mills, Aragon plant, Rock Hill, S. C.

Charles D. Green, of Spartanburg, S. C., has been appointed superintendent of the Mills Mill, No. 2, at Woodruff, S. C., succeeding **B. R. Burhnham,** who resigned to become superintendent of the Pelzer (S. C.) Mfg. Co. Mr. Green has served Mills Mill in several capacities.

H. R. Hart recently resigned as superintendent of the Victory Mfg. Co., Fayetteville, N. C., to accept a similar position with the Durham Cotton Mfg. Co., East Durham, N. C. Mr. Hart is a graduate of the Lowell (Mass.) Textile School.

J. B. Hothersall, formerly superintendent of the Cleveland Cloth Mills Co., Shelby, N. C., has become superintendent of the silk plant of the Dilling Cotton Mills, Kings Mountain, N. C., succeeding **J. L. Laurens,** who recently resigned.

W. A. Hope has relinquished his duties as superintendent of plants No. 1 and No. 2 of the Republic Cotton Mills, Great Falls, S. C.

G. A. Johnson, formerly superintendent of the Fitzgerald (Ga.) Mills, is now overseer of the carding department of the Martha Mills, Thomaston, Ga.

E. L. McCormack, formerly connected with Victor-Monaghan Co., Greenville, S. C., and later with the Dover Mills Co., Shelby, N. C., has accepted a position as designer with the Oconee Mills Co., Westminster, S. C. Mr. McCormack is a graduate of the Clemson College (S. C.) Textile School, class of 1926.

Alexander Robb, formerly with the Hillsboro (N. H.) Woolen Mill Co., and more recently with William Whitman Co., Inc., New York, has severed his connections with the woolen trade. He has been appointed manager of a large estate.

Textile Calendar

Textile Forum, N.A.C.M., for overseers of dyeing, bleaching and cloth room, Chamber of Commerce Bldg., Boston, Mass., Mar. 10, 1932.

Committee D-13, American Society for Testing Materials, Spring Meeting, Providence, R. I., March 10-11, 1932.

Silk Association of America, Annual Meeting, 468 Fourth Avenue, New York, March 23, 1932.

Cotton Manufacturers' Association of Georgia, 32nd Annual Convention, Atlanta-Biltmore Hotel, Atlanta, Ga., April 5 and 6, 1932.

National Association of Hosiery and Underwear Manufacturers, Annual Meeting, Commercial Museum, Philadelphia, Pa., April 14, 1932.

Knitting Arts Exhibition, 28th Annual Show, Commercial Museum, Philadelphia, April 11 to 15, 1932.

North Carolina State College, Annual Textile Exhibition and Style Show, Raleigh, N. C., April 15, 1932.

Southeastern Section of American Association of Textile Chemists and Colorists, spring meeting, Auburn, Ala., April 30, 1932.

Textile Forum, N.A.C.M., General Meeting for agents and superintendents, Chamber of Commerce Bldg., Boston, Mass., April or May, 1932. (Date is to be announced.)

Second National Cotton Week, May 16 to 21, 1932.

American Cotton Manufacturers Association, annual convention, Atlanta-Biltmore Hotel, Atlanta, May 20-21, 1932.

National Association of Woolen and Worsted Overseers, semi-annual meeting, Rocky Point, R. I., May 21, 1932.

Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct, 17 to 22, 1932.

Frederick H. Smith, former superintendent at the Channing Smith Textile Corp., Cherry Valley, Mass., has been engaged as superintendent at the David N. Taft Mfg. Co., Oxford, Mass. He replaces **R. H. Church** who has resigned as of Feb. 1.

J. P. **Long** has resigned as superintendent of the Kings Mountain (N. C.) Mfg. Co., to become master mechanic of the Neisler Mills, Inc., Kings Mountain.

A. **G. Bouhuys,** manager of the textile laboratory, American Enka Corp., Enka, N. C., accompanied by Mrs. Bouhuys, has arrived in Holland on a visit.

Chester A. Amick has accepted a position as director of chemical research with the United States Finishing Co., Providence.

Thomas Bredbury, former superintendent of the yarn department of the Mohawk Carpet Mills, Amsterdam, N. Y., is now with the Wood Worsted Mill of the American Woolen Co., at Lawrence, Mass., as superintendent of the French worsted department. He replaces **Jules Schweighoffer,** who has resigned.

James H. Pickford, who was secretary of the National Association of Woolen and Worsted Overseers from 1918 to 1931 inclusive, has resigned, and has been succeeded by **James J. Burns,** of Washington, R. I. Mr. Pickford has also resigned as superintendent of the Thayer Woolen Co., North Oxford, Mass., and his place there has been taken by **L. G. Drummond,** former superintendent of the Blue Ridge Woolen Co., Chambersburg, Pa.

Edwin B. Strickland, superintendent of the Glenark Mill, Uxbridge Worsted Co., Inc., Woonsocket, R. I., for a number of years, has been named agent of the Granite Mill of the company at Pascoag, R. I. He replaces **Alan Smith** who has been transferred to the Millbury (Mass.) Spinning Co., a branch of the main company at Uxbridge, Mass.

G. W. Pettee has been promoted to night superintendent of the carding and spinning divisions of the Cartex Mills, Salisbury, N. C., succeeding **G. L. Meacham,** resigned.

G. E. Townsend, graduate student in the chemistry and dyeing division of the Clemson College (S. C.) Textile School, recently accepted a position with the Piedmont Print Works, Taylors, S. C.

Walter H. Glenn, overseer of spinning at the Manchester (Ga.) Cotton Mills, has succeeded **B. B. Burnette** as overseer of spinning at the Whitney (S. C.) Mfg. Co. Mr. Burnette has been transferred to the post of overseer of spinning for the two plants of the Pacolet (S. C.) Mfg. Co., which is under the same management as the Whitney Mills.

Obituary

Alexander Long, Sr.

Alexander Long, Sr., whose death was announced in last week's issue, was president and treasurer of the Arcade Cotton Mills, Rock Hill, S. C., and one of the pioneer cotton manufacturers of South Carolina. He died in a Charlotte (N. C.) hospital Feb. 17 from pneumonia at the age of 73 years. Mr. Long was also chairman of the board of directors of the Aragon-Baldwin Cotton Mills, with plants in Rock Hill, Chester and Whitmire, S. C., a director of The Cotton-Textile Institute, and a member of the executive committee of the Cotton Manufacturers Association of South Carolina. He started his career as secretary of the Darlington Manufacturing Co., of Darlington, S. C. From there he went to Laurens, S. C., where he was secretary of the Laurens Cotton Mill and the Watts Cotton Mill for some years. At one time he served as president of the Glenn Lowry Manufacturing Co., at Whitmire, S. C. Many years ago he went to Rock Hill, when he was made president of the Aragon Mills.

He served for a number of years as president of Aragon-Baldwin Cotton Mills, Inc., after they were established from a combine of Aragon and Glenn Lowry Mills, relinquishing this position to become chairman of the board of directors. At the time of his death he was also president and treasurer of the Arcade Cotton Mills, of Rock Hill.

Mr. Long had been active in the Cotton-Textile Institute and a member of the executive committee of the South Carolina Cotton Manufacturers Association.

He is survived by his widow and his son, Alexander Long, Jr., and a daughter.

Philip L. Schell

Philip L. Schell, a partner in the firm of W. Stursberg, Schell & Co., New York, vice-president and a director of the Germania Mills, Holyoke, Mass., and treasurer and director of Livingston Worsted Co., Washington, R. I., died last Friday afternoon in New York very

Alexander Long, Sr.

suddenly. Born in New York City, 73 years ago and educated in the private school of Emil Schau, Mr. Schell early turned his attention to the woolen industry, becoming associated with Swift, Sackett & Co. and continuing with their successors, James T. Swift & Co., Wanskuck Co., and Metcalf Bros. & Co., New York. Retiring from that concern, he became associated as a partner in 1893 with W. Stursberg, the firm name becoming W. Stursberg, Schell & Co. under which style it has continued ever since. He is survived by his widow and one son Edward Paul Schell.

Herbert O. White

Herbert O. White, president of the Leader Weaving Co., Central Falls, R. I., died suddenly Feb. 21, at the age of 60 years. Mr. White was born in Leicester, Mass., he graduated from Amherst College in the same class as ex-President Coolidge and the late Dwight W. Morrow. He was a member of the University Club of Providence, Rhode Island Country Club, Rhode Island Historical Society, Southern New England Textile Club, Pawtucket Golf Club, To Kalon Club of Pawtucket, and Sons of the American Revolution. He is survived by his widow and two daughters.

Dr. J. A. Hartsell

Dr. J. A. Hartsell, vice-president, Hartsell Mills Co., Concord, N. C., died at his home Feb. 18, following a sudden heart attack. Dr. Hartsell, who was 42 years of age, was a native of Concord and a son of the late J. L. Hartsell founder of the Hartsell Mills. He has engaged in the practice of medicine in Concord, except for a period in military service during the World War, dating from 1915. He is survived by his widow, his mother, one daughter, and two sisters.

Samuel S. Eveland

Samuel S. Eveland, who recently organized the Universal Fiber Corp., New York, for the purpose of utilizing his process for the manufacture of ramie products, was found dead of bullet wounds in his home in Philadelphia, the latter part of January. Mr. Eveland was 63 years of age. He was known as a chemist, electrical engineer and inventor. For more than 20 years he had conducted scientific research and had obtained more than 100 patents. Among his inventions were self-starters for automobiles, electric riveter, roller bearings for use in revolving lighthouses, and many electric light devices. He was the founder and first president of the Standard Roller Bearing Co., Philadelphia. Mr. Eveland's most recent activity was developing ramie fiber for textile use, as reported in TEXTILE WORLD early last December. Announcement will be made later as to the future plans of the Universal Fiber Corp. Mr. Eveland is survived by a daughter.

NEWS about MILLS

Cotton

Morrilton (Ark.) Cotton Mills, which were sold the last part of 1929 to the Southern Securities Co., Little Rock, Ark., and have since been idle, seem to be taking on signs of life, although no definite announcement has been made as to when they will be opened or by whom. The machinery has recently been cleaned. H. C. Couch is one of the principal bondholders.

Lonsdale Co., Blackstone, Mass. Increased production schedule has been put into effect and the plant will now operate on a 54-hour week basis. Many operatives, long idle, have returned to work.

General Cotton Supply Corp. is the new name that has been given to the **Lincoln Mfg. Co.,** Fall River, Mass. The property includes the former Lincoln Mfg. Co. and **Davis Mills Corp.** which were acquired by the General Cotton Corp., a holding company, in 1930. The mills have not been operated since and much of the machinery has been dismantled.

***Whitman Mills,** New Bedford, Mass. Property consisting of equipment and machinery was sold at auction Feb. 15 to Walter E. O'Hara, representing the Textile Machinery & Supply Co., Fall River, Mass., for $140,300. The sale was ordered by the Suffolk County Court for the First National Bank, Boston, with a claim of $137,618. Three New Bedford banks have also brought claims.

Burlington Mills, Inc., the **Alamance Weaving Co.,** and the **North Carolina Silk Mills,** of Burlington, N. C., units in the J. Spencer Love group of mills, have equipped their new looms with Veeder-Root pick counters, purchased through the W. A. Kennedy Co., Charlotte, N. C., manufacturers agents.

Highland Park Mfg. Co., Charlotte, N. C., has started up 500 looms on ginghams similar to those formerly manufactured.

Cannon Mills, Plant No. 7, Salisbury, N. C., recently purchased a complete installation of Veeder-Root pick counters through the W. A. Kennedy Co., Charlotte, N. C., manufacturers agents.

***Green River Mfg. Co.,** Tuxedo, N. C. W. M. Sherard, ex-mayor of Hendersonville, N. C., and T. Max Watson, treasurer, **Sterling Hosiery Mills, Inc.,** Spindale, N. C., have been appointed permanent receivers for the Green River company by Circuit Judge J. H. Clement. The receivers will take charge of the mill properties as soon as the required bond is posted. The plant is equipped with 8,400 ring spindles for producing combed yarns and bleaching, dyeing and mercerizing equipment.

***Manville Jenckes Co.,** Woonsocket, R. I. Westcott Construction Co., is making record progress in demolishing the local Social Mill of this company. While work has been under way slightly more than a month, about one-third of the work of stripping the old plant and salvaging materials has been completed.

Eureka Cotton Mills, Chester, S. C., received bids Feb. 18 for construction of new buildings and alterations and enlargement of other buildings. New construction is to include one two-story unit, 153x80 ft.; a one-story weave shed addition, 218x128 ft., and a two-story addition, 75x100 ft., all to consist of concrete foundations, brick walls, structural steel framework, cast iron columns, steel sash, roof insulation, wood and cement floors, and tar and gravel roof. J. E. Sirrine & Co., Greenville, S. C., are the architects and engineers.

Hampton Spinning Mills, Clover, S. C., are operating on a day and night schedule. No women are working at night.

Pacific Mills, Columbia, S. C., are running on a complete day and night schedule, with full working force in all departments. The day run is on a basis of 55 hours a week, and the night shift, 50 hours weekly.

Woodstock Rug Co., Woodstock, Ont., Canada, has been established in the plant of the Woodstock Wagon Mfg. Co. by Urban Schwartz, a former weaver for La France Plushes, Ltd., Woodstock. Mr. Schwartz, who is a native of Jugo-Slavia, constructed the fifteen looms himself and now is operating them in filling an order for 15,000 rugs for a large Canadian firm. The rugs are similar to those which have previously been imported from Japan and are made of pure cotton yarn dyed in attractive colors. The dyeing is being done at the plant of La France Plushes, Ltd. The mill is at present operating 24 hours a day and employs 35 men and women.

Wool

Waterman Worsted Mills, Inc., Goff, N. H., at one time located at Putnam, Conn., has been placed in receivership. The company is controlled by W. H. Duval & Co., New York, and moved from Putnam about one year ago.

Mannington Mills, Inc., Salem, N. J., felt base floor coverings, which was destroyed by fire last October, has invited bids for reconstruction work including a group of four entirely new buildings. Plans have been prepared by Louis H. Goettelman, Gloucester, N. J. The plans include an addition to the present building, 32x150 ft., one story, structural steel, hollow tile and brick walls, with gypsum fireproof roof, and concrete floor. This addition will be used for loop drying of the felt fabrics and will have an 18 ft. ceiling. Another building will be 50x236 ft., one story, same construction, made up of three dry rooms, 15 ft. wide, separated by brick walls, and 20 ft. ceiling, used for flat drying on racks of structural iron and steel. Another building for use as the printing shop will be 50x116 ft., with 18 ft. ceiling, steel truss construction with steel deck, and provision for future extension. The fourth unit will be an inspection room, 26x142 ft., with steel deck and a warehouse 42x96 ft., with steel deck. All four buildings are built as a single unit but separated by fireproof walls. Cost will be about $100,000.

***Manayunk Plush Mfg. Co.,** Philadelphia, Pa. James A. Hayes, Jr., Philadelphia, has been appointed receiver for this company, following recent voluntary petition in bankruptcy.

Leach Textiles, Ltd., with head office in Huntingdon, Que., Canada, has been recently chartered to take over the old firm of **Hiram Leach & Sons, Ltd.,** which went into bankruptcy along with the parent plant in Bradford, Eng. Clarkson, McDonald & Currie, Montreal, Que., are now preparing a statement for the bondholders of the old company, most of whom are residents of Huntingdon, Que. The new capitalization consists of 500 preferred and 5,000 common shares of no par value. H. Leach, of Messrs. Hiram Leach & Sons, Ltd., Bradford, Eng., has returned to Canada and will take over the plant in Huntingdon.

Knit

Tampa, Fla. J. S. Long, 715 Florida Avenue, Tampa, is at the head of a project to establish and operate a local hosiery mill. It is proposed to purchase equipment at an early date. A company will be formed eventually to carry out the enterprise.

American Textiles, Inc., Mount Vernon, Ill. Paul H. Thompson has been appointed receiver for this company. Schedules list liabilities of $416,081.26, and assets, $271,031.60.

George F. Webber Co., Detroit, Mich., has been formed with a capital of $50,000, to take over and operate the mill heretofore conducted under the name of George F. Webber at 1400 Gratiot Ave. The new company is headed by Frank F. Webber, George W. Koonsman and John Duncan, all of Detroit.

Columbine Knitting Mills, Inc., Columbia, Miss., have increased production from a part-time basis to a full time schedule, with day and night working shifts. A number of employees have been reinstated. The new schedule will continue indefinitely.

**Indicates previous mention of project.*

*Hudson Silk Hosiery Co., Inc., Charlotte, N. C., is completing a second unit of its plant, which will give 34,000 sq.ft. of additional floor space. The program, includes also, machinery for a new throwing department. The company has recently installed 40 knitting machines. About 150 additional workers will be given employment when the plant is put in production, bringing the total force to 600.

Campbell Silk Hosiery Mills, Lambertville, N. J. The U. S. District Court has authorized Hervey S. Moore, Trenton, N. J., and James L. Rankin, Chester, Pa., receivers, to dispose of the mill and property. The plant has been continued in operation under the receivership, and is now in operation on a day and night schedule.

Meyer Dorfman, Brooklyn, N. Y., has plans under way for a four-story addition to mill, reported to cost over $35,000, with equipment. Henry Hohauser, New York, is architect.

Keller Knitting Co., Cleveland, Ohio, has been organized with a capital of 100 shares of stock, no par value, to take over and succeed to the company of same name, with local mill on Euclid Ave. New company is headed by officials of the former organization, including William A. and Fred C. Keller, and G. A. Hirst.

Fidelity Knitting Mills, Philadelphia. Petition in voluntary bankruptcy has been filed.

Hancock Knitting Mills, Philadelphia. Stockholders will hold a special meeting April 18, for the purpose of voting on a proposed increase of the capital stock of the company by the issuance of 7% cumulative preferred stock.

*Erdman Hosiery Mills, Curwensville, Pa., recently formed to operate a local mill, have taken out a state charter with capital of $50,000. The company is headed by W. C. Erdman, H. J. Thompson, C. O. Morris and H. G. Gates, all of Curwensville. Operations at the plant have been started.

*Majestic Knitting Co., Philadelphia. As reported in a recent issue of TEXTILE WORLD there has been a dissolution in the partnership between Max Meyers and Louis Price. Supplementing our report, however, it is Mr. Meyers who is now the sole owner of the company as Mr. Price has withdrawn.

*Pannill Knitting Co., Martinsville, Va., has awarded general contract for new mill addition, on which work has been started, to Finley & McCoy Co., Martinsville. It will be three-story, 60x100 ft. Superstructure will soon be under way.

Dobson-Miller Corp., Pulaski, Va., is running on a full time production schedule, giving employment to about 100 operatives, and expects to continue on this basis throughout 1932.

Weber Knitting Mills, Inc., Appleton, Wis. Articles of incorporation have been filed, and the company has been authorized to issue 250 shares of preferred stock with a par value of $100 and 250 shares of common no par value. Incorporators are John A. Weber, Harry P. Weber, and Joseph A. Weber.

*Indicates previous mention of project.

Silk

Star Silk Mills, Inc., Fall River, Mass., recently organized with capital of $20,000, to operate a local mill, will be headed by Louis Ginsberg, president; and John Mazurak, 86 Spring St., Fall River, treasurer and representative.

*Maryland Silk Mfg. Co., West Warren, Mass., has been organized by officials of the **Maryland Silk Mills, Inc.,** Paterson, N. J., which recently moved from Paterson to West Warren, Mass. The new company is capitalized at $100,000, and is headed by Jehiel Weintraub as president; Louis W. Jaffe, vice-president; and Benjamin Jaffe, treasurer. Operations were recently started at West Warren.

Newmarket (N. H.) Mfg. Co. will dispose of part of its machinery there, and move the remainder to the Lowell (Mass.) Silk Mills, a subsidiary. The company has maintained its business at Newmarket since 1823. Treasurer Charles Walcott declared efficiency and economy will result from centering all operations at Lowell.

Burlington (N. J.) Silk Mills, Inc. are giving employment to about 300 operatives, and expect to maintain this working quota for some weeks to come.

Eclipse Ribbon Mills, Inc., Paterson, N. J., have been organized as an interest of the **Eclipse Silk Mfg. Co., Inc.,** with local mill. The new company is capitalized with 2,500 shares of stock, no par value. Both organizations are headed by Charles W. Meachem.

Klareco Co., New York, has taken over the plant on Wilson St., Willimantic, Conn., operated for the last seven years by the **Uncas Silk Co.** The company starts with 20 employees in the production of silk products with anticipation of adding new lines, possibly necessitating plant expansion.

John N. Stearns & Co., Williamsport, Pa., are removing machinery from their weaving mill at Elmira, N. Y., recently closed down, to plant at Williamsport, where an expansion program will be carried out and production largely concentrated in future. A portion of the Elmira mill will be continued in service.

Freeland-Berwick Silk Co., Freeland, Pa., recently organized to operate a local mill, with capital of $100,000, will be headed by M. G. Waschko, 257 North Wyoming St., Hazleton, Pa.; Pauline Petro, 60 North Wyoming St., Hazleton; and Andrew Guffrovich, 173 North Main St., Wilkes-Barre, Pa. The last noted will be treasurer and representative.

Carlton Weaving Corp., Lehighton, Pa., recently organized to operate a local silk mill, will be represented by Moses Seltzer, 934 East 22nd St., Brooklyn, N. Y., one of the incorporators. Jacob Shawin, 230 South 16th St., Allentown, Pa., is one of the incorporators.

*Stark Bros. Ribbon Corp., Granby, Que., Canada, has started operations. **General Mills, Inc.,** Catasauqua, Pa., of which I. E. Stark is president, sells through selling agency of the same name **Stark Bros. Ribbon Corp.,** 183 Madison Ave., New York.

Miscellaneous

United Throwing Co., Elon College, N. C., a unit in the Burlington Mills group, is installing 4,000 Monarch twister spindles purchased from the Atwood Machine Co. When this installation is completed, the plant will have 10,000 Monarch twister spindles, making the United Throwing Co. the largest single unit in the South twisting rayon crepe yarns exclusively.

New Books

THE PREPARATION AND SPINNING OF THE FLAX FIBER; By F. A. G. Caldwell; Emmott & Co., Ltd., London, England; 15 shillings.

This volume has been written to meet the requirements of those actively engaged in this branch of the flax industry. The many processes through which the material passes during its conversion into yarn and the problems relating thereto are dealt with in detail, as is also the work of the various auxiliary departments. The concluding section, dealing as it does with the estimation of production and cost of manufacture, should be of special interest and assistance to manufacturers. A clear understanding of the text matter is facilitated by the use of numerous illustrations in this 360-page volume.

A.S.T.M. TENTATIVE STANDARDS; American Society for Testing Materials, Philadelphia, Pa.

A list of the standards and tentative standards of the Society in effect as of September 1931, is included in this volume. It contains the 180 tentative specifications, methods of test, definitions of terms, and recommended practices in effect at the time of its publication.

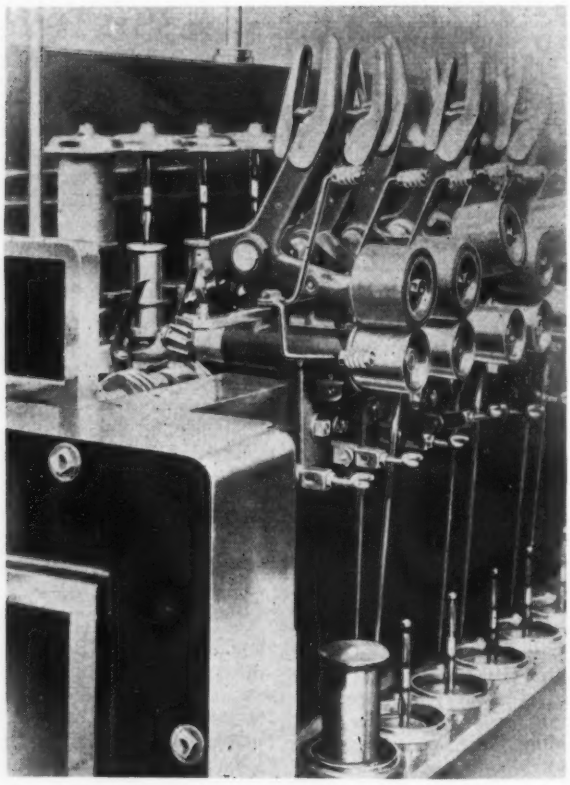
STYLING, DESIGNING, AND MERCHANDISING; Industrial Institute of the Art Center, New York City; A series of booklets priced at 25 cents each.

These are printed reports of the lectures and discussions on styling, designing, and merchandising given during the Industrial Institute course in 1931. These reports should serve as the beginning of a library of current design information. Some of the subjects discussed are, contemporary French design, style and the salesman, and dollar and cents value of beauty.

DATA BOOK; R. K. Laros Silk Co., Bethlehem, Pa.

This book has been designed primarily for use in the knitting industry with the problems of the hosiery manufacturer particularly in mind. It is a compilation of schedules, yarn tables, and rules and regulations governing the purchase and throwing of raw silk, together with a brief history of this fiber.

New Machinery *and* Processes



New type of twisting frame permits higher production and increased uniformity of twist

High-Production Twisting Frame

WHAT is described as an entirely new machine for the twisting of wool, worsted, rayon, net silk, cotton, and other yarns, is announced by Atkinson, Haserick & Co., Boston, Mass., American representative of Prince-Smith & Stells, Ltd., England. This machine, known as the Watson-Lister high-production twisting frame, is claimed to give increased uniformity of twist together with 100% more production than is obtainable on existing frames.

A combination of the two present-day principles of twisting—"down" twisting (in which twist is inserted by rotation of the bobbin which is being filled) and "up" twisting (in which the twist is inserted by rotation of the bobbin which is being unwrapped)— is employed in this new machine. It is made up of a series of twisting units, each consisting of a front spindle *A* (see illustration), a back spindle *B*, and a roller component *C*. The twisting units are mounted upon suitable framework of strong construction, forming what is known as a double-sided machine. The spindles are of a new pattern, designed for high-speed work; and the two driving cylinders run on ball bearings in order to eliminate unnecessary friction and vibration. The upper cylinder is driven from the lower one through a change-speed arrangement consisting of chain and sprocket gears, so that the two sets of spindles may be run at different speeds if desired.

The spindles *A* and *B* are each carried in a continuous rail, the former in front of the rollers, the latter behind, and in each case are driven by tape over a tension pulley from driving cylinders situated in the center of the machine. Spindle *A* may carry a tube, spool, or bobbin according to requirements; and the wrapping of the thread and the building of the package are actuated by ring and traveler controlled by suitable builder motion. Spindle *B* may carry a tube, spool, bobbin, or cheese of single yarn or several multiple-wound threads.

The roller component *C* is said to be an entirely new and unique piece of mechanism. It will be observed from the illustration that the axes of the rollers are at right angles to the frame work of the machine. This arrangement allows both the lower and upper rollers to be made open-ended, which facilitates the wrapping on of the thread by the operative. The lower roll is positively driven by a continuous shaft through worm and gear. Between the worm gear and the roller arbor is placed a tooth clutch which is withdrawn automatically when the upper roller is elevated. This action is also said to apply a brake to the lower roller, thus causing quick stoppage.

The diagram shows the path of the yarn, which is withdrawn vertically from spindle *C*, passes over suitable guides to the roller, and then over a traversing, multiple porcelain guide to spindle *A*, one or two raps around the roller being given as is necessary. The purpose of the upper roller is simply to give an additional nip; and it will be obvious that spindle *A* performs the function of down twisting, while spindle *B* performs the function of up twisting.

This ability to insert twists on each side of the delivery rollers is the basis for the asertion that the frame will produce 100% more work than an ordinary twisting machine with one line of spindles. It is further stated that the machine occupies no more floor space than an ordinary twisting machine and that considerably less power is absorbed than would be the case with two machines.

The manipulation of this machine is described as very simple. When a thread breaks down, the operator simply pushes the handle of the swivel lever, and the latter is positively held in an elevated position. Lifting the swivel lever in this manner causes (1) the upper roller to be elevated so as to be well clear of the lower roller, (2) the lower roller to be instantly stopped, (3) spindle *A* to be instantly stopped, and (4) spindle *B* to be instantly stopped. When the operation of piecing up has been accomplished, the operative lowers the swivel lever to its working position; and the various parts commence to rotate once more.

Particular stress is laid by the manufacturer on the feature whereby it is made possible to wrap the thread a number of times completely around the lower roller. It is this feature which is said to make possible a new standard

of regularity of twist; and it is pointed out that this method of wrapping the thread is possible only because the lower roller is capable of being disconnected from its driving gears and instantly stopped in conjunction with the stoppage of the spindles.

While the Watson-Lister twisting frame is said to be suitable for twisting all classes of yarn, where medium or hard twist is required, it is stated to be particularly advantageous for the twisting of crepe yarn, wool crepe, single hard twist, and net silk crepe yarn.

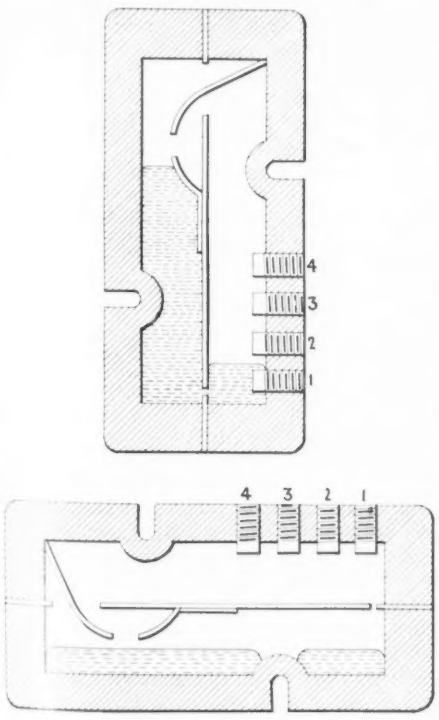
Time Delay Switch

A NEW time-delay switch, said to be unaffected by temperature changes or operating conditions, has been developed by the Lincoln Electric Co., Cleveland, Ohio.

The operation of this switch may be likened to that of the well-known hour glass, since its principle lies in the slow movement of mercury from one chamber to another. In the accompanying illustration, the lower diagram represents the switch in its off position with the mercury in the lower chamber. Wire connections are tapped to the upper compartment. In the upper view, the switch has been turned; and the mercury has commenced to flow into the other cavity through a small opening. As the mercury rises, it completes the circuit at the various taps. Variation in time delay is secured by making use of the different taps, the longest delay being obtained when the connection is made to tap No. 4. Variation of the size of the small opening at the bottom of the switch provides for further adjustment of the time delay.

When the switch resumes its horizontal position, the mercury passes through a large opening into the lower chamber, and the switch is ready to use again, as the contact is broken immediately.

Because the switch is totally inclosed, it is claimed that it is not affected by temperature variations, dust, or other harmful atmospheric effects.



Time-delay switch capable of being adjusted over wide range

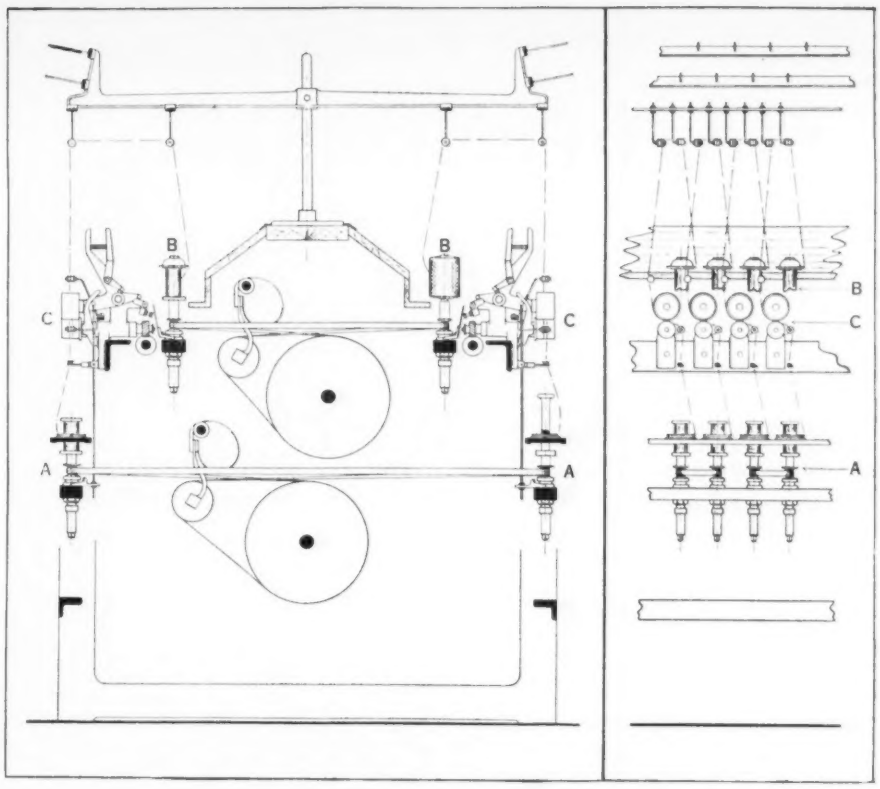


Diagram showing spindle and roller drives and spindle breaking appliance, operated automatically, from the roller head clutch device

Bronze Welding Rod

FOR use in the rebuilding of wear-resisting surfaces, such as piston rings or cylinder walls, the Linde Air Products Co., 30 East 42nd St., New York, has announced the development of a new bronze welding rod, known as Oxweld No. 25M. This is described as an improved manganese bronze rod, having special characteristics, which possesses the advantages of being non-fuming and exceptionally free-flowing.

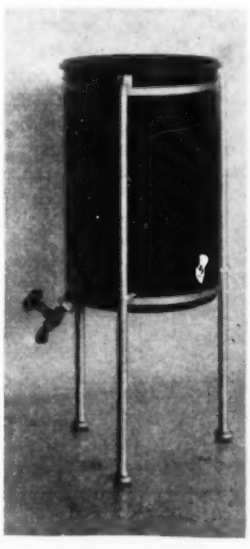
Since it is stated that no heavy slag forms over the weld after it has cooled, it may be considered that it will be particularly effective for use in the sectional building up of large pieces, where the weld must be made in successive layers. The hardness of the resulting weld is pointed out by the manufacturer to be one of the outstanding features.

Glass-Lined Equipment for Mixing Dyestuffs

GLASS-LINED mixing and storage equipment particularly designed for the preparation of dye and chemicals in liquid form is announced by Pfaudler Co., Rochester, N. Y.

The glass enamel, fused into steel, is said to present a surface that is acid-resistant, non-absorptive, and is easy to clean—yet is of durable construction. Motor-driven mixers of simple design, portable mixers, built-in discharge pumps, etc., constitute a series of devices that are stated to reduce labor costs. One large mill reports that one operator is displaced by each set of five mixers.

The equipment is built in capacities ranging from 10 to 55 gal. Low cost and high quality are stressed.



Glass-lined mixing and storage tank

Questions . . . *and* Answers

Necktie Lining Curls

Technical Editor:

I have been having considerable trouble in finishing a necktie lining. As you will note from the enclosed sample, the material has a tendency to curl. When the fabric comes from the loom it is decatized, pin tentered, and cold pressed. I should appreciate your opinion as to how to overcome the defect. What pressure do you recommend in decatizing, or could this process be eliminated? (7801)

The tendency of the necktie lining to curl denotes insufficient setting. Increased pressure and an extension of time in decatizing may be of some help. The results, of course, can best be determined by testing the fabric after each increase of pressure and time. Care should be taken to avoid tendering by over-steaming.

We suggest, however, that after decating, you roll your goods hot on wood rolls and allow them to remain overnight. This should help to set the goods and thus prevent curling.

This type of fabric often is treated on a two-bowl crabbing machine at the boil, the goods being left hot on the rolls until the following morning and then decated. Care should be employed in loading and unloading at the crabbing machine, as too much tension will result in loss of elasticity in the warp. Decating serves to retain the elasticity, and should be given much thought before crabbing is undertaken.

▼

Crepy Stitches in Rayon Hose

Technical Editor:

We are enclosing a stocking made with 150-denier, 40-filament rayon. This stocking, upon boarding, shows defects which the manufacturer blames on our dyeing. Will you be kind enough to let up know the cause of this defect and the way in which it can be eliminated? (7779)

We have examined the 150-denier, 40-filament rayon stocking and observe that the stitch is not uniform in places. This defect is commonly known as "crepy stitches," and is a trouble which frequently comes up in manufacturing goods in which the stitch length is rather long in comparison with the size of yarn used. Since there are a number of possible causes of the defect, we shall enumerate all of them.

It is evident that the knitting machine is not at fault. This is determined by stretching the fabric where the stitch distortion occurs and observing that the fabric under tension is quite uniform. We are of the opinion, therefore, that the distortion occurred as a result of some fault in processing either the yarn or the goods. Lack of uniform penetration of oil in conditioning may be a cause of the trouble. In case some parts of the yarn are not penetrated, the thread will be more resilient and will resist uniform stitch formation in knitting, causing crepy stitches to appear at random in the goods. This defect may, of course, be overcome by using a method of oil conditioning which will insure thorough penetration. It is recommended that the skeins be immersed in the oil and allowed to remain for from 10 to 15 min. The skeins should then be removed, wrapped in muslin, and extracted in a centrifugal extractor until only 3 to 5% of oil remains. By immersing the skeins, in preference to sprinkling or spraying, thorough penetration of all parts is insured; and the formation of a uniform fabric is made easier.

Rayon should be knitted fresh. Storage for a considerable period of time is likely to result in the yarn drying out on the surface of the packages, giving rise to the formation of uneven fabrics. In case it is necessary to store the yarn for a considerable length of time, it is recommended that yarn be stored away from direct sunlight and radiators, and that it be surrounded by a moist atmosphere.

If the goods were dyed in bags, there is little cause to believe that the defect arose at this point, although it is possible for severe mechanical manipulation in the dyeing machine to cause distortion of the stitches. The goods should be placed in the bags in as straight a condition as possible. In applying an oil softener after dyeing, it must be put on uniformly.

This defect is more likely caused by boarding the goods at too high a temperature. The fabric is thus dried before it assumes its normal shape on the form, and no amount of drying can put it right. It is also possible that the goods are too nearly dried out before the boarding operation. We recommend that the goods be boarded as soon as possible after removal from the extractor. This prevents the thinner rayon portions from becoming dry, due to evaporation. We are returning the stocking which has been wet out and then reboarded with the correct amount of moisture present. You will note that the crepy places in the leg have disappeared.

▼

Dark Horizontal Streaks in Stocking

Technical Editor:

We are enclosing a sample stocking which has a very noticeable defect in the form of a dark horizontal streak. We are at a loss to know the cause of these streaks and shall appreciate your opinion on this matter. Out of a batch of 20 doz. we will have a few dozen showing this defect. (7773)

In the absence of any information in regard to the composition of the stocking and the method of handling the component yarns, we believe the stocking has a rayon face plated over a backing yarn of cotton. It is possible that in winding, the rayon was oiled with an oil which was not suitable, or that this oil was not thoroughly removed before dyeing the fabric. Either of these conditions causes stockings to appear as the sample.

The regularity of the discolorations indicates that faulty conditioning of the yarn prior to the actual knitting of the hose may be the cause of the defect. If you will inform us how the yarns were conditioned, we shall be glad to give you our opinion as to the suitability of the method employed.

▼

Astrakhan Knitting and Finishing Problems

Technical Editor:

Referring to inquiry No. 7658, published in your issue of September 5, 1931, we wonder if you could furnish us with any data regarding the proportion of stitch and binder yarn used in relation to the number of yarns used, rather than to the size of each yarn. We believe that this proportion, to a great extent, controls the manner in which the loops of worsted yarn lie after being finished.

In regard to finish, we find that the fulling mats or opens out the curl too much, even if the fulling is of very

short duration. How would the amount of twist affect this? (7782)

The cloth referred to in the inquiry was made with the following layout: Six feeds; three plain, 2 ends 1/8s cotton; three double plush—1/18s binder, 1/18s face, 2/2½s worsted astrakhan backing.

In the whole set-up of six feeds used, there are fifteen ends of yarn. Nine of these are stitch threads, three are binder threads, and three are backing threads. Therefore, the proportion of stitch and binder yarn used in relation to the total number is 9 + 3:15, or 12:15. This, of course, does not refer to the proportionate weight or size of yarn used, but simply to the number employed.

The construction and weight of the fabric governs the requirements of fulling on astrakhan. The development of the loop or curl is entirely dependent upon the quality and twist of yarn used. Scoured astrakhan will be much clearer in appearance and will be free from broken loops; the fulled fabric, on the other hand, will show these various defects if not handled with care. Should it be necessary to full this fabric, we suggest the use of a 3° solution of soda ash, applying this stock to the piece cold, and running about 5 or 10 min. Then proceed to scour in the usual manner. The astrakhan should be treated with plenty of soda ash and enough liquor to cause the solution to overflow the washer while in the state of scouring. Washing off should be done at a good temperature, and sufficient water should be used to keep the goods free from dragging. Should the scoured goods prove to be too light in weight and if you do not care to full, an extra 20-min. treatment in soap, while scouring, will suffice to show more weight. Attainment of the desired result may also be had by using no tension in feeding to the dryer.

▼

Lousiness in Organzine

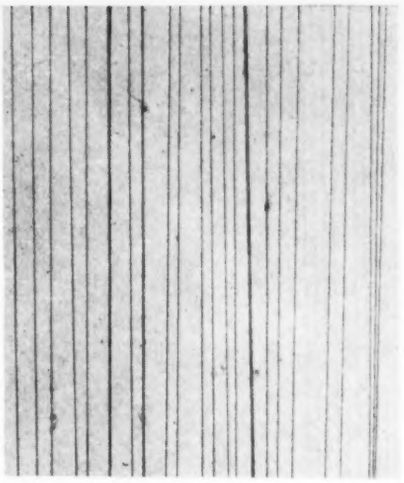
Technical Editor:

We are enclosing herewith a sample card of two-thread organzine which shows considerable evidence of what we would term "lousiness." The yarn dealer from whom we procured this yarn blames the dyer for this condition; and the dyer claims that the silk is of inferior grade. We should be glad to have your opinion as to just which of these claims is correct? (7793)

The defects on the threads submitted consisted of chafed and split threads, many large raw-silk loops, a number of loops partially split into very fine fibrillae, and nests of fibrillae.

These fibrillae, or very fine split fibers are the cause of the lousy appearance; and it is due to the fibers being so fine that they transmit light and thus appear lighter in color.

The chafed condition and spilt threads might indicate that the dyer overworked the silk in dyeing and caused the exfoliated condition; but as these threads may have been chafed in transit or



Card of Organzine showing evidence of lousiness

when winding on the card, and because the sample was too small, the evidence is not clear that the dyer is at fault. On the other hand, the nature of the lousiness was such that one might present considerable evidence to show that it was in the silk itself. It may be that the silk was soft in nature and susceptible of lousiness. If the dyer had been aware of this fact and had handled the silk accordingly, the lousiness would not have appeared or at least would have been less pronounced.

▼

Processing Sash Cord

Technical Editor:

We shall appreciate any information you are able to give us in regard to the stretching, sizing, finishing, polishing, and drying of solid, braided sash cord, clothesline, and curtain cord. We should like to know the types of equipment used, the different sizing ingredients recommended, and the method employed for preventing mildewing of the cord. (7807)

Sash cords, clotheslines, and curtain cords pass from the braiders to the finishing operation. The finishing materials add from 11 to 15% in weight. The amount of stretch is dependent on the tension given during the various operations.

The equipment consists of a size box where the cord is impregnated with the finishing compound. This is not unlike a cotton warp slasher, several ends of cord being treated at the same time. The machine should be so threaded that each end makes six or seven passes around the bottom roller. This insures a good pick-up of the finish, as well as complete penetration. The pressure on the top roll should be sufficient to give a good squeeze, but not great enough to make the cord flat, or ribbon-like.

From the size box, the cord passes to the dry cans. If there are few cans, the cord can pass around the same can several times. The speed of the cans and the number of times the cord is wrapped about the can should be so regulated that the cord comes off the cans thoroughly dry.

There are two ways of polishing the cord. The one that is most commonly used consists of having the cords, under tension, press against a rapidly revolving brush. This brush resembles a teasle gig or napper. The diameter of the cylinder holding the brushes is about 4 ft. Tension and speed of the brush determine the degree of polish. The other method consists of passing the cord from one revolving drum to another of equal size in the manner of a cross belt, or figure-of-eight. In this way the cords rub against each other and polish themselves. The surface is apt to be rougher with this method.

If low-grade cotton is used, it is necessary to employ a white pigment; otherwise the cord will have a dull gray color. This agent can be lithopone or zinc white.

When there is danger of mildew—although this is not common—there are a number of materials which can be added to the finishing compound when it has been cooked. Zinc chloride is effective when used in a concentration of about 2 lb. to 50 gal. of finish. Sodium fluoride, used at a strength of about 1 lb. to 50 gal. also gives good results. These salts do not evaporate, and therefore remain in the cord. Phenol and cresylic acid are effective when used in a concentration of about 1½ lb. to 50 gal. They have a strong odor; this disappears in time, and the efficiency of the material is slightly impaired.

The various ingredients are measured, using a 10-qt. galvanized pail for the purpose. We suggest you try the following sizing formula: 2 pails talc, 1½ pails pearl starch, 1½ pails tapioca flour, 2 pails dextrin, 1½ pails zinc white, ½ pail 50% sulfonated castor oil, 1½ pails soluble wax, and water to make 50 gal.

The starch, flour, and dextrin are mixed with cold water and stirred well to a smooth paste. The mixture is then brought to a boil and cooked for 20 min. The talc and zinc white are added and cooked another 10 min. Steam is now turned off, and the soluble wax and sulfonated oil are stirred in for 10 min. Water is added to make up to 50 gal. This hot mixture is run into the size box. The temperature should not be allowed to drop below 175° F.

When mildew preventives are used, add them with the wax or oil.

Inquiries should give the fullest information possible; and if damaged material is involved, a sample should be sent. We give no consideration to anonymouse inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.

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TEXTILE WORLD ANALYST

Mesh Hosiery Vogue Assumes "Boom" Proportions

IN THE firm belief that mesh and other novelty hosiery will be a best-seller throughout the warm months, numerous manufacturers of high-quality mesh lines this week, rearranged their production schedules to allow of a large output during the next four months. These firms will stress originality of design particularly, as they have found that distinction of pattern is a vital element in mesh hosiery sales.

Mesh demand is assuming a larger part each day in the hosiery picture; it was estimated this week that about 20% of the total orders being placed for women's hosiery, were in the mesh and other novelty divisions. Buyers are scrambling for merchandise and have difficulty in getting goods quickly enough.

Manufacturers whose mesh hosiery retails at $1.35 to $1.95 are asking three to four weeks for shipments. Neither jobbers or retailers will cover beyond four weeks, due to the uncertainty of the style element.

However, mesh hosiery styles are not as variable as some might have us believe. Certain of the more conservative numbers, usually small-spaced effects, have been on the market since last fall and are still found to be in active demand.

Mill executives said these were practically staples now, and they expect demand for this range to continue through the better part of the year, though perhaps less actively.

The industry is divided on the outlook for mesh. So far as the coming season is concerned, it should be remembered that summer is normally an outstanding season in novelties. Mesh hosiery for women lends itself particularly well to warm weather apparel. Dress styles for the outdoor period also emphasize mesh, which of course will help further by giving the retailer an additional sales argument; hosiery should figure prominently in the mesh ensemble. Current plans of manufacturers provide for mesh stockings varied not only in design but in fiber. Mercerized cotton hosiery numbers artistically conceived in net effects are being developed by the Durene Association of America and its member companies, through their style departments, and early consumer response is favorable.

Design tendencies indicate that the more feminine a pattern is, the better it will sell. Medium-sized designs, lacey in appearance, and often exploiting artistic motifs, are widely sought.

Distinction of pattern is called a vital element in mesh hosiery sales, yet the possible variation is within comparatively narrow limitations. Other branches of the textile industry may learn a lesson in styling and merchandising in observing how the makers of quality mesh hosiery differentiate their product from the closely competitive field and so avoid purely "price" appeal. Prospects for profits in mesh hosiery lie in upper brackets.

Spokesmen of firms which enjoy a good mesh hosiery demand offered some interesting comments on the selling life of individual designs. The life of a pattern averages six to eight weeks, but some lose popularity at the end of a month. The more extreme or bizarre patterns do not last long.

In projecting substantial output of mesh hosiery for this year, mills should study their types of merchandise. It seems unlikely that the very low-priced lines, those selling at $1.00 or less, will continue popular through the year. The production of cut and sewn mesh hosiery increases each week, and there is possibility of a surplus in May or June. The weakness in low-priced mesh is that mesh popularity evolved from the low-price of full-fashioned staples. Discriminating women wanted something different, and they were ready to pay. Flooding the market with inferior mesh hosiery, while it may not seriously injury the quality mesh market, will eventually mean a de-pricing to the point where it becomes competitive with the staples.

There is no question, in the writer's mind, but that the real prospects for a profitable business in mesh hosiery lies in the upper brackets. The whole effort of the industry today should be centered on trading-up, on maintaining quality and price. Indeed, price need not have been mentioned; if quality and originality of design are maintained, price will hold up.

What effect the growing output of low-priced mesh may have on the quality stockings, is debatable; some manufacturers of the latter express concern on the point, while others are still confident of their own prospects, relying on the quality and style appeal to offset the price element.

Consumer interest in mesh has jumped like a skyrocket during the last six months. Some mills which had regarded mesh as a very subordinate line, now find this type to represent 50 and even 60% of their business. The development has had a healthy effect on the hosiery industry as a whole. Art sources are being eagerly searched for new design ideas, and mills are showing an energy and an enthusiasm reminiscent of the "boom" pre-depression days of the hosiery industry. It is any man's guess as to how long the mesh hosiery vogue will last. Some manufacturers view it as purely a passing fancy, others as a two-year proposition. Probably the truth lies half-way between these estimates.

The merchandising discussion which appears regularly on this page considers various branches of the textile industry from week to week. It analyzes significant marketing trends or developments in those branches. While it covers current movements, its conclusions concern potential future significance of those movements, rather than the effect of temporary fluctuations in trade sentiment.

Pinching on yarn costs . . .

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Don't pinch on the cost of your yarns —It is dangerous, because after all, yarn is the most important part of any fabric. All other things being equal, the best yarn will always produce the best fabric.

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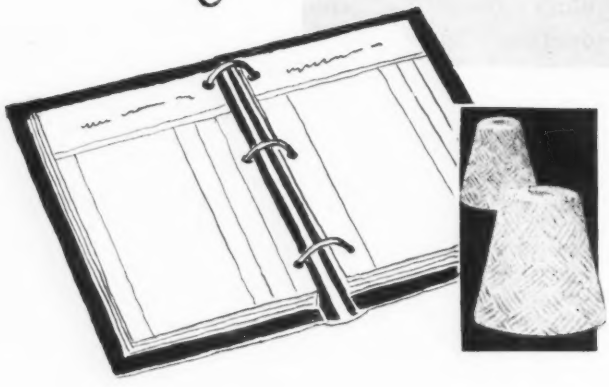

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

◆Cotton Yarns Strive For Firmer Prices

CONDITIONS in the cotton yarn market are still in a state of flux. Sellers are bending every effort to establish the market on a higher basis nearer to parity with cotton values. Spinners are contributing their effort in price advances of anything from ½ to 1c. over current quotations, but so far this has met stern resistance from buyers. In fact this situation has caused buyers to pass certain dealers, because of their inability to get together on prices. This latter situation is more frequent among combed yarn houses than in the carded field. The latter yarns have been less active lately, both as regards inquiries and shipments.

There is no question that the entire market is going through a period of evolution. Evidence is not lacking that certain buyers are disposed to believe the market has seen its bottom, and that opportunities to secure yarns at bargain prices are likely to be rather scarce from now on. While business has not yet turned active, dealers report decided improvement in tone on all sides.

So far, February has shown less activity than January, especially in the carded yarns. These yarns continue to mark time, and sellers are getting their houses in order so as to be ready for business as it may develop. Price advances from spinners are noted on all sides, but there are still occasional weak spots to be found. For lack of volume business, there has been little opportunity to raise prices to these new levels. On 20s-2 warps, spinners ask from 16c. up but 15½c. is still heard in Philadelphia; 30s-2 are quoted at 19½ to 20c., but a few are still offering at 19c.

The same situation exists on carded frame-spun yarns. Here 13c. is the lowest figure named by spinners for 10s, but it seems to be possible to find some willing to take a price below this level; 15c. is the average low on 18s, with 30s at 20c. for average yarns. Inquiries lately have been limited, and those houses that are quoting the higher figures have found business going elsewhere at a lower figure. It is confidently expected, however, that the entire market will find itself on a firmer basis very shortly.

Quotations on single combed yarns have been advanced by most spinners in an effort to bring their prices more in line with costs. This has resulted in some loss of orders, but sellers feel that the sooner the cheaper yarns are sold out of the market, the better chance there will be for fair prices on the business expected to develop in greater volume in the near future. Quotations find 12s at 18½ to 19½c.; 18s at 20 to 21c., 30s at 26 to 27c. Ply yarns are also firmer, with 60s-2 at 39 to 40c.; 40s-2 at 30 to 31c. Mercerized yarns are reported experiencing a normal spring bulge, with specifications and new business coming along, stimulated largely by use in the outerwear and underwear fields, as hosiery conditions are still irregular. Prices continue on a stable basis, though sellers call them far too low.

◆Cotton Reacts After Advance

AFTER selling up to 7.18 for May, and 7.59 for October contracts at the end of the previous week, cotton developed rather a reactionary tone over the holiday of Monday. Weakness in the Liverpool market, while partially neutralized by the advance in sterling, seemed to unsettle sentiment and there also appeared to be some falling off in the foreign demand which had been a feature on the advance. Offerings were absorbed on comparatively moderate reactions, however, and the market showed renewed steadiness later on reports that southern spot holders were showing little inclination to follow declines and that the basis was steady to firm. Wednesday was the first March notice day in the market here, but trade interests were buyers of the near months against sales of the later deliveries at a slight widening of the differences, and the notices were estimated at only about 22,000 bales. March liquidation has been in considerable volume during the week and the interest in that position has probably been reduced to comparatively small proportions.

The falling off in the demand from abroad which has been attributed largely to foreign trade buying or price fixing, but which has also included, no doubt, some undoing of straddles, and covering of shorts, would not seem unnatural after the heavy buying for that account noted in the market here since the beginning of

(Continued on page 52)

Market Briefs

Cotton: Increased offerings at higher prices check advance.

Cotton Yarns: Steadier market but buyers cautious.

Cotton Goods: More cheerful outlook; premium on contracts encourages sellers.

Wool: Continued quiet.

Worsted Yarns: Irregular market with not enough business to go around.

Woolen Goods: Staple suitings active.

Silk: Poor buying weakens prices.

Silk Yarns: Spinners seek new markets: thrown yarn quiet.

Silk Goods: Steady demand despite strike.

Rayon: Good position with fair movement of yarns.

Knit Goods: Mesh hosiery selling ahead; some mills delay 1932 fall underwear openings; interest in women's sweaters centers on lively horizontal stripes.

◆Worsted Yarns Have Opportunity Ahead

THERE has been further decline in demand for worsted yarns for prompt shipment, and the market presents a very quiet appearance. Business which has been received each week in small lots for immediate delivery, has shown a tendency to slow up, and there is still indication that buyers are marking time pending further developments. The trade does not expect this condition to continue much longer as revival of interest is expected in the near future.

There is no marked change in the price position. Wool values have been too well sustained to permit spinners to speculate on possibly lower raw material cost.

The margin between the selling prices and the production costs is already too near the vanishing point to allow any further concessions in a futile effort to attract business. There is also the possibility that yarn sellers have realized the foolishness of lack of firmness on price policy, which in turn is bound to upset the price basis on merchandise, thus unsettling the minds of buyers of both yarns and goods, and delaying purchases that much longer. Dealers report continued efforts on the part of buyers to obtain price concessions, but this attitude is receiving little encouragement from the spinner who is endeavoring to maintain standards of quality.

It is greatly to be hoped that every spinner will realize the situation demands a firm position if he hopes to make a profit.

Much of the price pressure is to be found in knitting yarns. Spinners assert it is impossible for them to meet buyers' ideas and even get a new dollar for an old one. It is recognized that buying must come soon if seasonable goods are to be made; consequently only a little common sense and backbone on the part of spinners and yarn dealers are needed to control the situation. Demand for swim suit yarns must start soon as the time is drawing dangerously near delivery dates. The situation has been complicated by the matter of credits, and efforts have been made to delay production until the last minute. However, when it comes to slub-dyed single yarns, there is likely to be a decided congestion of orders which will make it difficult for manufacturers to obtain supplies as rapidly as needed. The fact that some swim suit manufacturers are planning to run double shifts when they start production in order to get the goods out in time, will hardly help the situation, if the yarns needed can not be made up and delivered as fast as they are required. Spinners

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

should appreciate their advantage and capitalize it by using common sense. Because of uncertainty on colors, there is little chance for a spinner to make up yarns in anticipation—another strong point in favor of the primary market.

Weaving yarns continue to attract little interest. Specifications from men's wear mills are still conspicuous by their absence. Dealers see little chance of doing anything until this situation becomes more settled. So far efforts to start goods moving in anything like a normal volume have been fruitless at least so far as stirring up yarn demand goes. The whole situation is apparently a demonstration of the lack of any definite merchandising policy in either yarns or goods, and surplus stocks of goods seem to be a depressing factor.

◆Wool Trade Awaits Mill Demand

SLOWING up in the mill demand for wool is forcing the wool trade into a waiting position, and as mill buying is sluggish the market is without improvement either in price or volume, as compared with a week ago. Dealers operations at the moment furnish little indication of what may be the future trend of prices. Holders are asking firm but not higher prices even for the best wools. The turnover is irregular from day to day with the main feature of the market a sustained mill interest in the cheaper grades of fine wool.

The trade believes that the weeks ahead will see a definite expansion of mill purchasing and that the new clip will come into a market hungry for wool rather than one sated by a large carryover, as was the case a year ago. Forced deflation has carried wool the world over below cost of production and such a situation, in the United States especially, suggests better prices when the psychological moment arrives. Domestic strictly fine combing in the Boston market at this time is selling around 51% of its average value in 1926, while 200 U. S. commodities of the Irving Fisher index are approximately 65% of the 1926 aggregate value.

The larger part of the restricted business arriving in the market is for the finer grades of territory wool. The original bag wools are steady and the graded wools firm in price. In Texas wools there is a fair inquiry and some good buying of eight-months wool with substantial demand for twelve-months wool said to be pending. Fleece wool demand continues slow. Fine delaine at 23c. grease basis, has receded ½c. Business in pulled wools is on a fair scale with B pulled wools of increasing interest to woolen manufacturers.

◆Wool Substitutes Show Improvement

THE woolen rag market shows further slight improvement and yet is finding it a hard struggle to do business in a situation featured by large accumulations of rags for which there is no demand at this time. These accumulations constitute not merely a heavy financial handicap but at the same time exert depressing influence on the mind of the market.

Dealers are quite confident about the stability of the better prices on wool wastes now ruling, yet prefer to keep their stocks moving rather than to add to their accumulations. The market can hardly be termed active. It is more in a waiting mood and in this attitude is justified by signs of larger business coming to the woolen branch of manufacture.

The wool noil market for year to date has taken the lead in the sale of substitutes. Prices have had a satisfactroy advance and they are now being stabilized in a slower market. Dealers do not expect any lowering of values in the near future although it is likely that when mill buyers reenter the market they will press for lower prices on fine noils. The mill buying which led to rising quotations has now been satisfied to some large degree and mills coming into the market at this time are not disposed to follow the market up.

◆Fair Rayon Call; Weavers Buy Ahead

RAYON position continued firm this week. Weavers did not appear to be disturbed by the dress trade strike in New York, and were buying yarns for mid-March delivery. Knitters also placed a considerable quantity of small orders, chiefly spot; 150s and 100s both were in demand. Output of rayon underwear has been steady, and these manufacturers are confident of a moderately good spring season.

Market inquiry failed to reveal any real basis for the reports of acetate price weakness which have been prevalent. While unquestionably concessions are offered, these usually are moderate. Several rayon executives said they had heard the claim of a 50c. reduction in certain acetates, but could not confirm it, and were inclined to view the report as "buyer talk."

Stocks of rayon available are moderate, producers holding steadily to their curtailment policy. Market sentiment as regards early summer is firm; producers do not look for very active movement, relying chiefly on stock control to maintain price.

◆Shantung Slump Hits Silk Spinners

WHILE silk spinners are growing daily more conscious of the need for developing new markets, their current outlets shrink faster than substitute outlets appear. Shantung broadsilks, which have been a fashion highlight for some seasons, are definitely out of the picture this spring, according to reports from weaving mills; as a result broadsilk mills buy only meagerest quantities of spun yarn, and spinners have begun to feel the pinch. This is partially offset by the increasing interest in spun silk underwear, but other markets must be found. While spinners are still hopeful that the new spun silk and wool blanket line will prove popular, it is unlikely that will develop in time for the current season.

Underwear mills buy spun yarn steadily, orders being of fair-size and for spot shipment; these mills use both singles and ply.

Throwsters complain of poor buying. A few thrown silk mills manage to move stocks on hand, but generally interest is sluggish. The dress trade strike has made weavers hesitant. Hosiery manufacturers placed some business this week, but not enough to compensate for the lack of buying by weavers. Yarn prices are steady.

◆Fabric Lull Weakens Raw Silk

POOR demand from the broadsilk industry and some weakness in Japan brought a drop of 5 to 10c. in numerous raw silk grades this week. In 13/15s the super grand 87%, special grand 85% and grand double 83%, declined 10c. while a reduction of 5c. was made in practically all the white and yellow 20/22s. The revision did not stimulate buying to any extent. Broadsilk manufacturers are having a very backward season on fabrics, and are curtailing generally on output.

Hosiery mills are in better position and importers have been getting considerable business from these knitters. However, even the hosiery trade is dead set against advance buying, some purchasers stating frankly that they "prefer to take a chance on losing money in a possible rise, rather than cover ahead." Current orders for raw silk from these mills aggregate a fair volume, and importers are particularly pleased with the demand from hosiery manufacturers in the South.

Raw silk factors, while admitting a difficult immediate situation, are hopeful about end-March and April prospects.

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FABRIC MARKET REPORTS

TEXTILE WORLD ANALYST

◆Steady Support for Cottons Market

STEADIER buying in most quarters in the cotton goods market followed the announcement last week that 90% of mills running on print cloth yarn constructions had expressed favor to the extension of the curtailment program which is planned to bring production into line with demand. It has been the fear of a surplus of goods with attendant price cutting which has upset the market for many weeks. Hope for the correction of this abuse rose shortly after the turn of the year and resulted in good business during January. The virtual accomplishment of the program has been the basis for the more optimistic tone in the field during the current week and for the steady operations which have ensued.

Buyers' interest in print cloths has brought a firm price condition and students of the situation hail the fact that a number of fabrics carry a premium on contracts over spots, a condition which has not obtained in the field for a long time. Print cloths take their cue from cotton in this respect since the more distant months are at slightly higher figures than near months on the cotton exchange. As long as contracts are higher than spots, the mill will be in position to do business to advantage.

There has been increased interest in finished goods, partly as a result of better tone in gray goods and partly as a result of actual pressing needs among distributors. Converters are reported to be turning down offers of business at prices acceptable during January and their firmness in handling the situation is bringing greater interest from distributors.

After the brief marking time reported in this column last week, the cotton goods market is going ahead again on a better basis than has been possible for some time. If buyers can be stirred from their close hand-to-mouth position, a great improvement will have been accomplished. Few things have so stabilizing an effect on business as a back-log of advance orders.

There was fair inquiry and trading in sheetings during the week. Ducks moved better and buyers were less vigorous in their resistance to accepting quoted prices. There was little change in price and scant inquiry in the tire fabric market.

Fine cottons were not overly active, but there was good movement of slack twist voiles. There was little interest in piques, but the trade believes that buyers are merely digesting what they already possess and that the pique is still a live proposition. Interest in rayon crepes indicate that buyers still have need for immediate goods. Since these are not generally available from first hands, the market has been rather quiet.

Cotton goods sellers are optimistic that the first quarter of this year will show fair volume and profits if sellers continue to operate conservatively and recognize that it is better to make profit on part-time operation than to get involved in a loss on over-time operation.

◆Suitings Demand Mostly for Staples

WOOL goods manufacturers who restrict their output to ultra-conservative fabrics, especially in worsted suitings, seem to be the children of fortune this season. While prosperity is still waiting around the corner and nobody gets exceptional volume, the best part of current buying falls to the share of those who offer subdued designs. Suitings mills were finding great difficulty in moving novelty lines, this week; buyers fought shy of fancies, restricting orders to conservative fabrics. That is not to say there is a taboo on originality; on the contrary, new distinctive weaves are favored but they must be subdued in tone and have a more or less permanent appeal.

Several firms specializing in the semi-staple worsted suitings claimed this week to be sold through March. Women's wear fabrics continue in steady call, though pressure has weakened slightly. Topcoatings also are active, and prices hold steady. The chief price weakness is in men's novelties, where stocks exceed demand and mills are forcing sales.

The fall suitings will open late this year; several important houses plan to defer showings "at least until the end of March and probably later."

◆Broadsilks Moving Despite Dress Strike

THE New York dress industry strike so far has proved less of a set-back to broadsilk sales than had been expected by the mills. In the last few days prior to Washington's Birthday, there was a good call for canton crepes, chiffons and especially triple-weight georgettes. The current week opened quiet, but this was ascribed to the holiday interruption. Cutters-up specializing in low-priced lines are hesitant and numerous firms have asked postponement of delivery on new fabric orders. However, the quality group continued buying with fair regularity through the early days of this week.

Current demand shows increased interest in prints, due to Paris reports indicating that prints are important in early summer lines, and a good March call for certain designs is expected. Print stocks in New York are rather low, many mills having cleared early fearing a repetition of the costly slump of last year. Chiffons become more popular daily, and large florals are selling steadily.

Broadsilk tone is good, despite the strike problem, and prices hold firm. The outlook is considerably better than this time last season, when widespread overproduction forced wholesale slashing of prices.

▸Second Blanket Conference March 11

The various snags encountered in the movement toward standardization of wool and part wool blanket labelling will, it is hoped, be smoothed out at the second general conference, plans for which were announced this week in Washington by the Bureau of Standards of the Department of Commerce. The meeting will be held at the New Yorker Hotel, New York City, at 10 A.M., March 11. Invitations have been sent to all interested in labeling of blankets, whether producers, distributors or organized users.

The agenda for the meeting as announced by L. R. Gilbert, of the Division of Trade Statistics, includes:

Outline of procedure for establishment of commercial standards—L. R. Gilbert, Division of Trade Standards.

Presentation of proposed commercial standards—Robert Amory, treasurer, Nashua Mfg. Co.

Discussion and adjustment of recommendations; Formal action on recommendations; Set effective date for (a) new production, (b) Clearance of existing stocks; Certification plan.

▸France's Textile Schools Are Supported by Industry

There are now 12 to 15 textile schools in France, four of which are located in the Strasbourg district, where the textile industry is a most important one, according to a report from Vice-Consul James D. Child, Strasbourg, made public by the Department of Commerce.

Two of these schools are rated as among the best on the Continent. The schools are supported by the textile interests, and while primarily established for the benefit of Frenchmen, many students of foreign birth and nationality are accepted at the two more prominent institutions.

KNIT GOODS MARKETS

TEXTILE WORLD ANALYST

◆Mills Slow to Show Fall Underwear

THE fall openings of heavyweight underwear lines, which is the feature of the underwear industry at present, gave indications this week of being a day-to-day proposition. The indifference of the buying fraternity prompted numerous mills to delay their showings, despite the agreement for a joint opening of all companies Feb. 15. At present, something more than half the mills have shown their fall underwear lines. As anticipated, there has been little initial business. However, mills recognize that big sales at openings are a thing of the past, and they are satisfied to show lines to the occasional buyers who appear.

New prices average about 10% below last season, the cut representing the saving due to decline in raw cotton levels. Manufacturers are confident but cautious. They are planning their output schedules on the basis of very slow buying through spring, with possibility of some improvement toward June.

Lightweight underwear sells steadily, but all orders are small; prices hold firm. There is some interest in futures. The spirited buying in January has encouraged mills to increase output, but in view of the colder weather some slackening of output for the next few weeks would be advisable. Women's rayon underwear continues in fairly active call.

◆Stripes Favored In Women's Sweaters

THE holiday interruption, together with a general hesitancy among distributors made for sluggish business this week in the outerwear market. Women's worsted sweaters were still in demand and while orders are smaller than at the beginning of February, there is a fair quantity of business available. Interest centers on horizontal stripes, in the brighter shades; garments made to retail at $1.00 and $2.00 are the most popular. Men's sweaters move unevenly.

The fall sweater lines, scheduled to open last week, are making their appearance slowly. Only a small percentage of the mills have offered their lines and it will probably be another couple of weeks before the entire heavyweight sweater range for 1932 is out. It is not possible to gauge the new price averages as yet; although quotations are well below 1931 buyers do not respond, pending the announcements of important companies which have not yet shown their lines.

Swimsuit sales suffered a decline during the last ten days, and agents are not optimistic about immediate prospects. The cold weather is a handicap and little improvement may be looked for, until spring weather develops. Some of the larger mills have curtailed their output of bathing-suits in line with the drop in demand, but it is doubtful whether the reduction has been general enough. Prices are steady. The issue to be faced in the next two months is whether the big jump in total output by an abnormally large number of manufacturers can be assimilated before summer.

◆Boys Golf Hosiery Weakness Is Problem

APPROACH of Easter and increased call for mesh hosiery has strengthened the tone of the hosiery market. Mills were asking 14 to 21 days leeway on mesh orders this week, and the medium-priced lines sold spiritedly at a profit. Staple full-fashioned are in steady call, but orders are mostly nearby. The bulk of Easter business placed so far, is in orders for mesh and lace-top numbers. A survey of Worth Street houses revealed a decline in the quantities of distress staples; prices of the under-a-dollar lines were steadier and some mills claimed to be making money.

In the secondary markets, such as children's and infants' hosiery, the outlook is good, with the exception of boys' golf hose. The situation in the last-named field has caused much concern, due to uneven buying and generally weak prices. The current issue of the "Special News-Letter" organ of the National Association of Hosiery and Underwear Manufacturers offers the following pertinent comment on the boys golf hose situation:

"Business has been highly irregular and generally unsatisfactory. Patterns which would have commanded substantial business at the 50-cent retail price range not so long ago are being freely offered as 35-c. and even 25-c. retailers.

"Interesting possibilities are seen for boys' anklets, now being featured by a number of mills. Conservatives find it hard to believe, however, that anklets will be accepted as 'he-man' apparel by any considerable number of boys above the age of eight or ten years."

▸Textiles Needed By Navy Dept.

The Bureau of Supplies and Accounts, Navy Department, Washington, D. C., has invited bids on the following merchandise: 360,000 cotton handkerchiefs, 150,000 pairs cotton socks, and 65,000 yd. blue chambray, all for delivery to Brooklyn, N. Y. Bids will be opened March 1.

◆Raw Cotton Report

(Continued from page 47)

the month. Possibly the demand which sometimes develops toward the beginning of the spring season has run its course, and that requirements which were procrastinated earlier in the season in the hope of lower prices with the approach of another planting season, have been pretty well covered or sufficiently so to justify remaining shorts in waiting for a better line on the acreage and coming crop start. Nevertheless recent developments have strengthened the prospect for a substantial increase in the proportion of American in the world's consumption of cotton for this season and, particularly, increased takings of the Orient. Exports of cotton from this country to Japan, China and Bombay for the season up to the close of business on Feb. 19, amounted to 2,493,664 bales against 990,176 for the same period last year and estimates have been heard in the trade that the Orient will take in the neighborhood of 3,500,000 bales of American cotton this season.

Nothing more conclusive has developed with reference to coming acreage prospects. A preliminary canvass made by a New Orleans trade paper resulting in replies from 500 correspondents is said to have pointed to a decrease of about 21%. On the other hand, the American Cotton Crop Service says that "returns from recent questionnaires to all parts of the belt indicate a disappointing reduction in cotton acreage due to the fact that 'cotton acreage curtailers' failed to supply the cotton grower with cash crops other than cotton. In no case have we received reports indicating more than 15% reduction in cotton acreage and most reports show a much smaller figure."

The weather during the week remained too wet in many sections of the belt and farm work is behind usual over a substantial area.

◆Peeler Comber Prices Steady

ACTIVE dealer covering of peeler comber commitments has brought about a firm to advancing tendency in prices for this commodity. Dealers who have orders to fill find it difficult to obtain strictly No. 1 comber below 5¾c., and in some cases have paid 5⅞. Mill demand for this material continues quite active, and selling prices have remained unchanged at 6 to 6¼c.

A broadening of demand from foreign sources for spinnable materials is anticipated by waste dealers, particularly if reports of a partial failure of the Indian cotton crop prove to be correct.

◆ Pacific Mills Loss Larger

AFTER all charges, including depreciation of $1,424,124 and inventory markdown of $1,236,176, Pacific Mills reports for the calendar year 1931 a net loss of $3,801,677. In 1930 after an inventory markdown of $826,219 the loss was $2,417,886. In 1929 there was a net profit after all charges of $1,031,168.

Surplus account decreased during the year by $3,801,677, or from $3,261,332 to a deficit of $540,344. Net quick assets decreased $3,052,678, or from $16,473,057 to $13,420,379.

The company's income account for the year ended Dec. 31, 1931, compares as follows:

	1931	1930
Net sales	$33,808,023	$36,843,573
Cost of goods sold	34,929,273	36,630,688
Net op. loss	1,121,250	212,885
Plant depreciation	1,424,124	1,458,801
Inventory mark down	1,236,176	826,220
Net inerest charges	†120,106	†41,296
Other charges	140,234	245,556
Net loss for year	3,801,677	2,417,887

†Interest income exceeds interest charges by this amount.

In his annual report to stockholders, Treasurer Alfred E. Colby said in part:

"Net sales charged, due to lower values of merchandise, decreased $3,035,550, or 8.24% while unit volume charges increased approximately 8.5%. The inventory shows a further reduction of $1,186,091 reflecting the lower values of cotton, wool, rayon and manufactured cloths.

"Salary and wage adjustments in all executive, manufacturing and selling departments, affecting all personnel, have been made during the year as well as further economies in manufacturing and selling.

"A general strike in Lawrence during the last quarter of the year contributed to the losses for the year. Wages, however, were out of line with the industry generally, and had to be adjusted to a competitive basis. Inventory losses were increased considerably by necessity of adjustment to lower wage costs.

"Cotton spindles numbering 54,512 have been moved from Lawrence, Mass., to Dover, N. H., and Columbia, S. C., replacing old spinning at these plants. Eight printing machines have been moved from Lawrence to Lyman, S. C., rounding out facilities at this plant. A further reduction in looms in place at the worsted division has been made. Changing demand made this necessary.

"Gray and finished cotton goods have improved in price in recent weeks and the situation in the cotton division is more promising. Selling prices for worsteds and woolens are not satisfactory, though efforts are being made to improve prices."

United Piece Dye Profit Off

The United Piece Dye Works and subsidiaries report for the year ended Dec. 31, 1931, net profit of $830,391 after depreciation and taxes, as compared with a net profit in 1930 of $3,365,528, and a net profit in 1929 of $3,391,321. The company's earned surplus has been reduced from $12,909,157 to $11,453,824, largely as a result of dividends on preferred and common stocks. Current assets at the close of 1931 totaled $8,494,042 against current liabilities of $730,819, leaving working capital of $7.763.223, as compared with working capital of $8,884,895 as a Dec. 31, 1930.

Century Ribbon Shows Profit

The annual statement of Century Ribbon Mills, Inc. (Ernest and Herman Levy) and its subsidiary, Century Factors, Inc., for the year ended Dec. 31, 1931 shows net profits of $156,163 after depreciation and other charges, equal, after deduction of preferred dividends, to 75 cents a share on common.

This compares with a net loss in 1930 of $172,835; net loss in 1929 of $27,269; a net profit in 1928 of $60,781, and a net profit in 1927 of $68,384.

In the year just ended the company earned $40,188, in addition to the 1931 net, from the purchase and subsequent retirement of preferred stock at less than par value.

Net sales in 1931 for the Century Ribbon Mills, Inc., only, amounted to $2,217,624, compared with $2,254,584 in 1930; $2,724,846 in 1929; $2,946,874 in 1928, and $3,370,386 in 1927.

Textiles, Inc., Annual Meeting

Annual meeting of stockholders of Textiles, Inc., Gastonia, N. C., will be held at the company's offices on Tuesday, March 1. This company was formed by the consolidation of 21 combed yarn mills in the Gaston County area and is headed by A. G. Myers, of Gastonia.

Blumenthal Cuts Deficit

The report of Sidney Blumenthal & Co., Inc., velvet manufacturers, and subsidiary companies, for the year ended Dec. 31, 1932, shows a net loss of $92,102, after all charges, compared with a net loss of $290,581 in the preceding year. Improvement in the company's position was due largely to spirited merchandising of transparent velvets at firm prices through 1931. The report shows total assets of $12,369,887 in 1931 against $10,933,817 in 1930.

Pilgrim Mills Loss

Pilgrim Mills, Fall River, Mass., operated during 1931 at a loss of $20,000. Loss after depreciation amounted to $120,000 and $20,000 of which was due to shrinkage in cotton goods values. Quick assets of the company however, exceed current liabilities by $370,000.

Durham Hosiery Gain

A net loss of $12,556 in 1930 was converted in 1931 into a net profit of $74,504, according to the report of Durham (N. C.) Hosiery Mills, for the year ended Dec. 31, 1931.

Austin H. Carr, president of the company, states that the firm's cost of manufacturing, selling, and administration expenses have been reduced and operations consolidated. "Conditions in textiles," he adds, "particularly hosiery, remain strenuously competitive, but we feel that our corporation is in a better position to make progress today than it has been for some time.

Bigelow-Sanford's Big Improvement

The Bigelow-Sanford Carpet Co., Inc., reports a net profit of $413,727, or 80c. a common share, in 1931, compared with a net loss of $658,191 in 1930.

Alabama Mills' Bond Committee

The bondholder's committee of the Alabama Mills Co., Birmingham, Ala., has recommended to holders of the company's first mortgage sinking-fund gold bonds that the operations of the company be continued under the present management until general business conditions improve sufficiently to work out a reorganization plan.

The committee also reported that operations for 1931 resulted in a let loss of $369,277 after all charges, compared with a net loss in 1930 of $482,956. Yardage sales in 1931 showed a gain of 36%, while the dollar sales were about 4% greater than in 1930. The Dec. 27, 1931, balance sheet of the company showed current assets of $869,317, and current liabilities of $237,448, leaving working capital of $631,869.

Boston Stock Auctions

The following sales of textile shares were made at auction, Feb. 17:

Shares	Mill	Par	Price	Change
10	Ludlow	...	48	—8
1	Plymouth Cordage	100	50	+1
36	American Mfg.	100	7⅞	....
16	American Mfg., pfd.	100	42	—8
63	Total			

▶ Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Feb. 23.

	High	Low	Last Sale	Net Change
Adams Millis	27	27	27	
American Woolen	5¼	4¼	4¾	+ ¼
American Woolen, pfd.	28¾	23¼	27	+ 2¼
Belding-Heminway	4	3¼	4	+ 1
*Blumenthal	4¼	4	4	— 1¼
Cannon Mills	18¼	17¾	18	+ ¾
Century Ribbon	6¼	6	6	— ¼
Collins & Aikman	9¾	8¼	8¼	— ¼
Consolidated Textile	⅛	⅛	⅛	— ⅛
Gotham Hosiery	10¼	10	10¼	+ ¼
Industrial Rayon	34	31	32	— 1¼
Kayser, Julius	9¼	7	8¼	+ ¼
Kendall, pfd.	38	31½	38	£ 7
Mallinson	1	¾	¾	— ¼
Mohawk Carpet	10	9¼	9¼	— ¾
Pacific Mills	10¼	8¼	8¼	— ¼
Real Silk Hosiery	3¾	3¼	3¾	+ ¼
*Tubize	2¼	2¼	2¼	+ ⅛
Unted Piece Dye Works	10	9	10	+ 1
Van Raalte	31¼	31¼	31¼	+24¼

*Listed on Curb.

▸ Paris Accents Fabric In Style Trends

The quarterly fashion forecast as presented at the Fashion Group's monthly luncheon at Sherry's, New York, last week included cables from Paris, a talk on "Fabrics," a Paris letter on hats, and the latest style trends on shoes and bags.

Of interest to textile manufacturers were the following comments: "tremendous strides made by American mills in original and adaptable fabrics . . . America has now been able to interest the French couture in fabrics of varied textures. . . . The attention to weave, texture and design now being given by those engaged in fashion in America, is a progressive element that will prove true fashion work." But more specifically "In woolens and worsteds the greatest achievements have been in dress fabrics . . . used precisely as silk is used . . . tweeds in self and two-tone effects in the lighter colors; plain fine crepes, sheer but opaque which will predominate in black, navy and the brighter blues. Fine cashmere is sheer chiffon weight and lace effects in an important style item."

Cottons were importantly mentioned as "being everywhere from the humblest to the most beautiful." Silk is "akin to wool in weave development."

Cables from Paris contained the following highlights: Molyneux: "Day-wear skirts are shorter." Elsa Schiaparelli: "New color combinations pink and brown, gray and brown, orange and green." Miss Dora Miller, *Herald-Tribune* Paris representative: "Bows are everywhere. There is much cotton and linen even for the street. Wools retain popularity." Miss Fitzwater, New York *Herald-Tribune* fashion representative: "Skirt lengths for day vary from ten to fourteen inches from the ground. For informal evening the instep length prevails. Necklines are high for both day and evening . . . unlined coats that look like dresses. In colors blue predominates; next are pale beiges, parchment, green, grays. Black steps down . . . shown mostly with contrasts. Bright reds are good."

▸ Textile Foundation to Award Fellowships and Scholarships

The Textile Foundation has decided to award 24 fellowships and scholarships for scientific research in the textile industries, Stuart W. Cramer, of Charlotte, N. C., treasurer of the Foundation, has announced.

The work may be done in the fields of chemistry, physics, biology, and engineering. In describing the classes, Mr. Cramer said that there will be senior fellowships for those who hold the doctor's degree or have had equivalent training. The normal amount to be paid is: unmarried, first appointment, $2,000, reappointment, $2,000; married, first appointment, $2,400, reappointment, $2,700.

Junior fellowships will be available for those who hold a bachelor's degree or have had equivalent training. For this, the normal stipend is $1,000 for an unmarried student and $1,200 for a married student. Scholarships carrying $750 will be given to available seniors.

Mr. Cramer said that interested individuals should write Edward T. Pickard, secretary of the Foundation at the Commerce Building in Washington.

▸ Theory of Knitting and Knitted Fabrics at N. Y. High School

A new course in the theory of knitting and knitted fabrics is being offered in the new Textile High School, New York, on Monday and Wednesday evenings from 7:20 to 9:20.

Some of the topics to be studied are: Yarns—their manufacture, numbering, determination of count, conversion of the count from one system to the equivalent count in any other system; humidification and conditioning of yarns and fabrics; knitting on the modern flat and circular machines; fabrics, jerseys, ribs, cardigans, striped and figured fabrics studied and actually produced in the laboratory on full size knitting machines; identification and analysis of yarns and cloth. Louis G. Goldenberg, B.T.E., is the instructor in charge.

▸ N. Y. Chemists Hear Address on Waterproofing

The February meeting of the New York Section of the American Association of Textile Chemists and Colorists was held on Friday evening, Feb. 26, at the Alexander Hamilton Hotel, Paterson, N. J. The speaker of the evining was Donald M. Martin of the Aqua-seal Corp. whose subject was "Waterproofing—Mystery of, and Present Day Methods."

▸ A. B. Otto to Continue the Jonathan Ring Business

Following the announcement of the resignation of Stanley R. Stager, president Jonathan Ring & Son, Inc., Philadelphia, Arthur B. Otto, secretary and treasurer states that the business will be continued by him, trading as Jonathan Ring & Co., spinning woolen and merino yarns, at the same address, Hancock & Montgomery Ave.

▸ Bemberg-Glanzstoff in New Home

The New York offices of The American Bemberg Corp. and of the American Glanzstoff Corp. were moved Tuesday from 180 Madison Ave. to 261 Fifth Ave., corner of 29th St.

▸ British Rayon Production in January Large

British production of rayon in January reached the record figure of 6,440,000 lb. against 6,070,000 in December and 3,870,000 in January a year ago.

▸ Hosiery Knitters to Greet Constantine at Three Meetings

Numerous important hosiery problems will be considered at an afternoon conference of hosiery manufacturers in Reading and Berks County, Pa., to be held on Wednesday, March 16, at the Abraham Lincoln Hotel, Reading.

The conference, which will follow the annual "hosiery luncheon" of the local Kiwanis Club, under the supervision of Howard C. Faust of the Gold Seal Knitting Mills, Reading, at the same hotel is being arranged by the three directors of the National Association of Hosiery & Underwear Manufacturers in Reading, together with Mr. Faust. The meeting also will give Earl Constantine, the new managing director of the association an opportunity to meet a large group of Berks County manufacturers and to feel the pulse of the industry.

Southern directors of the association are planning a conference of hosiery manufacturers in Chattanooga prior to March 10 for mill men in the Chattanooga district, to be attended by Mr. Constantine, and similiar meetings are being planned of North Carolina manufacturers, probably at Greensboro; and of manufacturers in Michigan, Wisconsin, Minnesota, Iowa, Illinois and Indiana, at Chicago.

▸ Silk Boycott Would Add 300,000 to Idle, Stehli Says

Protesting against the anti-Japanese economic boycott proposed by a group of American educators and others, led by President A. Lawrence Lowell of Harvard University, Henry E. Stehli, of Stehlisilks Corp. this week sent the following letter to Mr. Lowell:

"Any boycott action would have economic repercussions in this country which might be comparable to its effect in the Orient. Without taking into consideration the operation of such a boycott upon capital invested in the American silk industry, it is well to realize in this time of heroic effort to raise the level of employment, that approximately 300,000 American silk operators may be thrown out of work. The injury done to American industry may be well indicated by the following figures: 90% of the cost of producing the average silk dress lies in American labor, manufacture and distribution; these costs represent 70% of producing average silk hosiery."

▸ Ask Standards Bureau Aid On Rayon Specifications

The Bureau of Standards has been asked to aid in developing rayon underwear fabric standards, it became known this week. A report of the results of the rayon committee meeting held Feb. 17 at the offices of the National Retail Dry Goods Association, on circular knit underwear fabric standards was made by Dr. J. H. White, manager of the Viscose Rayon Department of Du Pont Rayon Co., chairman of the committee.

▸ Arbitration Council Now Includes Garment Manufacturers

The International Association of Garment Manufacturers has accepted the invitation extended by the General Arbitration Council to become a member organization. This will extend the membership of the council to include a representative from eight important associations connected with cotton manufacturing and distribution. The original members in addition to the three manufacturers' associations are: Association of Cotton Textile Merchants of New York; Textile Converters' Association; National Association of Finishers of Textile Fabrics; Textile Brokers' Association.

The Arbitration Council conducts proceedings at the offices of the Cotton-Textile Institute, New York. The secretary, F. A. Colt, reports a considerable increase during the last few months in cases presented for adjudication presumably as the services offered by this neutral arbitration body have become better known in the industry.

▸ Push Plans For New All-Silk Union

Officers of the Associated Silk Workers Union, an A. F. of L. organization, in Paterson, N. J., together with officers of hosiery and other labor bodies are pushing plans toward consolidation of all workers in the silk industry within one union. The proposed body is to be known as the National Federation of Silk Workers, and its aim will be to bring about a uniform eight-hour day and better wage and working conditions. Emil Rieve, president of the American Federation of Full-Fashioned Hosiery Workers, A. J. Muste, Dean of Brookwood Labor College, Louis F. Budenz, Paterson labor leader, and General Organizer Frank Schweitzer spoke recently at a meeting held in Paterson to stimulate worker interest in the new all-silk union.

Mr. Schweitzer said a conference of Paterson and Pennsylvania silk workers would be held early in March to effect organization of the National Federation of Silk Workers.

▸ Plan Chemical Center for Chicago

A step in the establishment of a chemical center in Chicago was taken recently, when officers of the Chicago Section of the American Chemical Society signed a five-year, renewable lease for facilities in the Midland Bldg. This lease gives members of the Chicago Section of the American Chemical Society the use of the Midland Club quarters for meetings. At the same time the members of the Chicago Chemists Club took over club quarters on one floor of the building.

Several chemical companies now have their Chicago quarters in the building and efforts are being made to rent space to other companies allied with the chemical industries. Change of name of the building to "The Chemical Center" is contemplated.

▸ "Suede Cloth" of Mohair Latest Auto Textile

Designed especially for the automobile trade, "Suede Cloth," a rich short pile mohair mixture fabric has just been introduced by Sanford (Me.) Mills. The material retains the chief characteristics of the familiar mohair velvet but has a distinctive appearance and texture, being not unlike broadcloth.

▸ Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Feb. 20, based upon data compiled by Dept. of Agriculture, follow:

	Week Ended Feb. 20	Total to Date 1932	Total to Date 1931
Domestic	2,145,000	9,943,000	9,920,000
Foreign	1,101,000	7,620,000	7,530,000
Total	3,246,000	17,563,000	17,450,000
IMPORTS AT PRINCIPAL PORTS			
Boston	1,101,000	7,620,000	7,530,000
Philadelphia	532,000	5,216,000	4,285,000
New York	1,002,000	5,791,000	6,195,000
Total	2,635,000	18,627,000	18,010,000

▸ Italy Limits Use of Term "Silk"

Use of the word "seta" (silk) to describe any fabric which is not in fact of silk or animal origin is prohibited in Italy under regulations drawn up by the Ministry of Corporations, according to a report from Consul Homer Brett, Milan, made public by the Department of Commerce. This prohibition will also extend to the use of foreign words for silk.

▸ Widder Bros. Offer Flag Colors

Coincident to the observance of the Washington Bi-Centennial, Widder Bros., silk manufacturers, New York, have added two patriotic colors, "Flag Red" and "Flag Blue," to their current range of crepes cantons and satins.

▸ Italian Rayon Firm Asks Tariff Reduction

Application for a decrease in import duty on rayon yarns has been received by the Tariff Commission, Washington, from the Italian Embassy on behalf of the Italrayon, Societa Anonima Italiana, Milan, Italy.

▸ Marland C. Hobbs Made Vice-President of Arlington

Marland C. Hobbs, who has been associated with the Arlington Mills, Lawrence, Mass., over twelve years, has been appointed by the directors to the office of vice-president of the company.

Business News

Southern Firm Reports 1931 Business 25% Larger than 1930

The W. A. Kennedy Co., Charlotte, N. C., manufacturers agents, representing Veeder-Root, Inc., Fletcher Works, Hungerford & Terry, Inc., and other textile machinery firms, reports an increase of 25% in their business in 1931 as compared with 1930.

Dr. Davidson Elected Vice-President of Carbide & Carbon Chemicals Corp.

Dr. J. G. Davidson was elected vice-president of the Carbide & Carbon Chemicals Corp., New York, at a meeting of the board of directors held last month. W. F. Reich, Jr., has been appointed general sales manager.

C. S. Glicksman Joins Glyco Products Laboratory Staff

Chas. S. Glicksman, who majored in chemistry and physics at the University of North Carolina, has joined the laboratory staff of the Glyco Products Co., Inc., Bush Terminal, Brooklyn, N. Y. He will devote most of his time to special emulsion work for the leather, food, cosmetic, textile, rubber, and paint industries.

Dixie Spindle & Flyer Erecting New Plant

Dixie Spindle & Flyer Co., Charlotte, N. C., has built a new plant, costing approximately $50,000, which will be ready for occupancy within a week. The building contains 7,000 sq.ft. of floor space. This company, of which A. M. Guillet is president and treasurer, specializes in repair work on spindles and flyers and other textile machinery.

Wright Machine Co. Organized at Granite Falls

Wright Machine Co., Granite Falls, N. C., has been organized and recently started operations in general repair work for textile mills and in building special machinery and gears of all kinds. The new company has capital stock of $100,000 and elected the following officers: A. A. Shuford, Jr., president; W. C. Wright, vice-president and manager; and J. W. Warlick, secretary and treasurer.

R. D. Tarr Appointed Saco-Lowell Works Manager at Biddeford

The following announcement has been made by David J. Edwards, president of the Saco-Lowell Shops, Biddeford, Me.:

"Frederick E. Banfield, Jr., having been elected a vice-president of the company, the title of "agent" is abolished.

"Effective at once, Roderic D. Tarr will be works manager of the consolidated plants in Biddeford and Saco.

"Edward T. Hyde is appointed service manager. It is understood that Mr. Hyde's work will be along the same lines that it has been in the past."

QUOTATIONS

at close of business, Feb. 24, 1932
Prices cover average qualities unless otherwise stated

Cotton Goods

	Feb. 24	Feb. 17	Feb. 25 1931
PRINT CLOTHS			
27 -in., 64x60, 7.60	2½c.	2½c.	3½-3¾c.
38½-in., 64x60, 5.35	3¼-4 c.	3¼c.	5½c.
39 -in., 68x72, 4.75	4¼-4½c.	4¼-4½c.	6¼-6½c.
39 -in., 72x76, 4.25	5¼-5½c.	-5½c.	6½-7c.
39 -in., 80x80, 4.00	5¼-5½c.	5¼-5½c.	7⅛-7¼c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	4¼-4½c.	4¼-4½c.	5¾c.
36-in., 48x48, 3.00	4¼-4¼c.	4¼c.	6½c.
37-in., 48x48, 4.00	4¼c.	4-4¼c.	5¼-5½c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	4¼c.	4¼c.	6¼-6½c.
36 -in., 64x60, 5.75	4¼c.	4¼c.	5¼-5½c
MISCELLANEOUS			
Drills, 37-in., 3 yd..	4¼c.	4¼c.	6½c.
Denims, 2.20	9½c.	9½c.	12½c.
Tickings, 8 oz.	12 c.	12 c.	15 c.
Standard prints	6½c.	6½c.	7½c.
Eastern staple ginghams, 27-in.	6 c.	6 c.	8 c.

Cotton Waste

Peeler comber	5¾ - 6¼
Peeler strips	5 - 5½
Sak. comber	4¾ - 5
Choice willowed fly	2¾ - 2¾
Choice willowed picker	2 - 3
Sak strips	6 - 7
Linters (mill run	2 - 2¾
White spooler (single)	4¼ - 4¾

Cotton Yarn

CARDED (Average Quality)
Double Carded 2c.—4c., higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.12½	22s	$0.16
10s	- .13	24s	- .17
12s	- .13½	26s	- .18
16s	- .14½	30s	- .19
20s	- .15	40s ex. qual.	- .28

TWO-PLY SKEINS AND TUBES

8s-2	$0.13	26s-2	$0.18- .18½
10s-2	- .13½	30s-2	19½- .20
12s-2	- .14	36s-2	- .25
14s-2	- .14½	40s-2	- .26
16s-2	- .15	40s-hi.brk.	- .28
20s-2	15 - .16	50s-2	- .33
24s-2	17 - .17½	60s-2	- .36

SINGLE WARPS

10s	$0.13	24s	$0.17
12s	- .13½	26s	- .18
14s	- .13¾	30s	- .19½
16s	- .14	40s. ex.qual.	- .28
20s	15 - .15½		

TWO-PLY WARPS

8s-2	$0.13	24s-2	$0.17½-0.18
10s-2	.13½	26s-2	.18½- .19
12s-2	.14	30s-2	.19½- .20
14s-2	.14½	40s-2 ordin.	- .26
16s-2	.15	50s-2	- .33
20s-2	.15½- .16	60s-2	- .36

8s-2 and 4-ply skeins and tubes; tinged, 11½; white, 12½; waste, 11

HOSIERY CONES (Frame Spun)

8s	$0.12½	22s	$0.16 -0.16½
10s	- .13	24s	- .17
12s	- .13½	26s	.18
14s	- .14	30s tying	18½- .19
16s	- .14½	30s reg.	.20 - .20½
18s	- .15	30s ex.qual.	.21 - .22
20s	15½- .16	40s	- .26

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.25	60s-2	$0.39 - .40
30s-2	.27 - .28	70s-2	.50 - .52
36s-2	.29 - .30	80s-2	.60 - .63
40s-2	.30 - .31	90s-2	.85 - .87
50s-2	.33 - .35	100s-2	.98 - 1.05

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.25	60s-2	$0.40 -0.41
30s-2	.28 - .29	70s-2	.50 - .52
36s-2	.30 - .31	80s-2	.60 - .62
40s-2	.31 - .32	90s-2	.85 - .90
50s-2	.35 - .36	100s-2	.95 -1.02

SINGLES

12s	$0.18½-0.19½	30s	$0.26 -0.27
14s	19 - .20	38s	.28½- .29
16s	.19½- .20½	40s	.29 - .30
18s	.20 - .21	50s	.33 - .34
20s	.21 - .22	60s	.40 - .42
24s	.23 - .24	70s	.51 - .53
28s	.25 - .26	80s	.60 - .63

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.36½-0.38½	90s-2	$0.90
30s-2	.38 - .40	100s-2	1.15-1.25
36s-2	.40 - .42	120s-2	1.50-1.60
40s-2	.42 - .44	30s	.51- .52
45s-2	.42½- .44½	40s	- .56
50s-2	.45 - .47	50s	.61- .64
60s-2	.50 - .52	60s	.70- .73
70s-2	.64 - .66	70s	.80- .83
80s-2	.73 - .75	80s	.92- .96

Cotton Prices and Statistics

COTTON STATISTICAL DATA
(Fluctuations of Futures)

	Closed Feb. 18	For Week High	For Week Low	Closed Feb. 24	Net Ch'ge
February	6.87	6.91	6.87	....	....
March	6.91	7.00	6.77	6.88	—.03
April	6.99	7.02	6.87	6.97	—.02
May	7.08	7.18	6.97	7.06	—.02
June	7.16	7.20	7.06	7.16	....
July	7.25	7.35	7.12	7.22	—.03
August	7.32	7.36	7.20	7.29	—.03
September	7.40	7.44	7.27	7.35	—.05
October	7.49	7.59	7.32	7.43	—.06
November	7.56	7.62	7.41	7.50	—.04
December	7.66	7.77	7.50	7.60	—.04
January	7.74	7.84	7.59	7.66	—.08

SPOT FLUCTUATIONS FOR WEEK
(Middling)

	New York	New Orleans	Liverpool
Thursday, Feb. 18	7.05	6.87	5.87
Friday, Feb. 19	7.05	6.87	5.95
Saturday, Feb. 20	7.05	6.91	6.05
Monday, Feb. 22	Holiday	Holiday	....
Tuesday, Feb. 23	6.95	6.76	5.91
Wednesday, Feb. 24	7.05	6.85	5.73

FOREIGN COTTONS

Egyptian Cotton

Alexandria Exchange, Feb. 23.		Change
Mar. Sak	14.22	+0.72
Apr. Uppers	11.89	+0.62

Feb.-Mar. Shipment c. i. f. Boston
(Tariff not included)

Fully good fair Sak (No. 38)	13.60
Fully good fair to good Uppers (No. 10)	11.12

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cents
Peruvian Tanguis Strict Middling	16½
Peruvian Pima No. 1	16
Peruvian Moderate Rough	11½
Peruvian Full Rough	17
China Tientsin No. 1	9½
India Rough	7 to10
India Smooth	6½ to 7½

(By Bruns-Nordeman Co.)

MOVEMENT INTO SIGHT

	This Year	Last Year
Week	249,000	166,000
Season	12,398,000	11,376,000

WORLD VISIBLE SUPPLY

	Feb. 19	One Year Ago
Interior towns and ports of U.S.*	6,851,000	5,528,000
Afloat to and at ports of Europe	1,473,000	1,870,000
Afloat to and at ports of Orient	1,052,000	353,000
Total	9,376,000	7,751,000
	Increase	Decrease
Change during week	19,000	32,000

*Includes afloat to New York

FORWARDINGS TO MILLS OF WORLD

	This Year Week	This Year Season	Last Year Week	Last Year Season
No. States, U.S.	19,000	525,000	18,000	540,000
So. States, U.S.	80,000	2,990,000	62,000	2,572,000
Total U.S.	99,000	3,515,000	80,000	3,112,000
Great Britain	27,000	711,000	17,000	517,000
Continent	61,000	2,019,000	65,000	2,116,000
Orient	44,000	1,831,000	32,000	778,000
Canada and other America	2,000	113,000	4,000	139,000
Total Foreign Countries	134,000	4,674,000	118,000	3,550,000
World total	233,000	8,189,000	198,000	6,662,000

EXPORTS FROM UNITED STATES

Total	207,000	5,568,000*	125,000	4,799,000

AVERAGE PRICE FEB.-MAR., SHIPMENT HARD WESTERN COTTON
F.o.b. New England

	Middling	St. Middling
1 1/16-in	8½- 8¾c.	8¾- 9¼c.
1⅛-in	9 - 9½c.	9¾-10c.
1 3/16-in	10 -10½c.	10¾-11¼c.
1¼-in	12½-13½c.	13½-14½c.

Basis on New York, March, 6.98.

SPORT FLUCTUATIONS AND STOCKS

Markets	Feb. 17	Feb. 24	Sales	This Week	Last Year
Galveston	6.75	6.85	2,802	911,452	630,026
New Orleans	6.72	6.85	12,781	1,103,743	797,552
Mobile	6.40	6.55	2,517	214,002	229,257
Savannah	6.76	6.88	2,432	292,386	347,488
Norfolk	6.85	6.96	337	67,606	94,411
New York	6.90	7.05	3,600	208,445	229,706
Augusta	6.69	6.88	2,626	130,212	109,538
Memphis	6.10	6.25	35,943	453,739	335,542
St. Louis	6.50	6.50	....	....	16,418
Houston	6.70	6.85	21,319	1,573,329	1,393,343
Dallas	6.30	6.40	29,371	34,756	17,853

DIFFERENCES ON AND OFF MIDDLING WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F	0.50†	.75†	0.65†	0.63†	0.65†
S.G.M	.40†	.50†	.55†	.56†	.51†
G.M	.30†	.40†	.40†	.38†	.37†
S.M	.20†	.25†	.25†	.19†	.23†
S.L.M	.20*	.20*	.25*	.19*	.23*
L.M	.40*	.50*	.50*	.38*	.47*
S.G.O.**	.75*	.75*	.85*	.75*	.79*
G.O.	1.00*	1.00*	1.15*	1.13*	1.08*
YELLOW TINGED					
G.M	0.25*	0.25*	0.25*	0.25*	0.26*
S.M	.35*	.40*	.35*	.38*	.38*
M.**	.50*	.50*	.50*	.50*	.51*
S.L.M	.90*	.90*	.85*	.75*	.86*
L.M	1.25*	1.25*	1.15*	1.13*	1.22*
YELLOW STAINED					
G.M	0.40*	0.65*	0.50*	0.38*	0.51*
S.M.**	.65*	1.05*	.85*	.75*	.87*
M.**	1.00*	1.15*	1.15*	1.13*	1.21*
BLUE STAINED					
G.M.**	0.65*	0.60*	0.50*	0.50*	0.56*
S.M.**	1.00*	.80*	.85*	.88*	.89*
M.**	1.25*	.90*	1.15*	1.13*	1.17*

**Grades not deliverable on contract.
*Off Middling. †On Middling

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA
(IN GREASE)

Fine delne...	$0.23 –$0.24	⅜ blood....	$0.23 –0.24
Fine clthg...	.20 – .21	¼ blood....	.21 – .22
½ blood.....	.23 – .24		

TEXAS AND CALIFORNIA
(CLEAN BASIS)

Texas, 12 months	$0.54 –0.56
California, Northern	.46 – .48

PULLED—EASTERN (CLEAN BASIS)

AA.....	$0.58 –$0.60	B-Super...	$0.43 –0.45
A-Super....	.48 – .50	C-Super...	.38 – .42

MONTANA, IDAHO AND WYOMING
(CLEAN BASIS)

Staple fine	$0.55 –0.57
Staple ½ bld	.53 – .55
Fine and fine medium	.52 – .55
⅜ blood	.48 – .50
½ blood	.41 – .43

MOHAIR—DOMESTIC

Best carding	$0.23 –0.28
Best combing	.31 – .33

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.17 –0.21
Cape firsts	.18 – .21

FOREIGN CLOTHING AND COMBING
(CLEAN BASIS IN BOND)

Australia:	
70s	$0.38 –0.40
64s	.30 – .32
58s-60s	.28 – .30

(IN GREASE)

Montevideo:	
58s-60s	$0.17 –0.18
56s	.16 – .17
50s	.15 – .16
Buenos Aires:	
4s, 40-44s	$0.10 –0.11
5s, 36-40s	.09 – .10

FOREIGN CARPET (GREASE BASIS IN BOND)

Aleppo washed	$0.19 –0.20
China: Combing No. 1	.12 – .13
China Filling Fleece	.11 – .12
Szechuen ass't	.12 – .13
Cordova	.09 – .10
Scotch black face (nominal)	.14 – .16
East India: Kandahar	.15 – .16
Vican'r	.19 – .20
Joria	.19 – .20

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.75
2-24s 40s	– .80
2-26s 44s	.82½– .85
2-28s 46s	– .87½
2-30s 48s	.92½– .95
2-32s 50s	.97½–1.00
2-30s 64s fancy mixes	1.25 –1.27½
(Single yarns 5c. less than above)	
2-36s 58s	1.05
2-40s, 60s	–1.20
2-40s, 64s	1.27½–1.32½
2-50s, 66s	1.40 –1.45
2-60s, 70s	1.82½–1.85

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.70 – .72½
2-20s, 48s in oil	.72½
2-20s, 50s in oil	– .75
2-20s, 56s in oil	.92½– .95
2-20s, 60s in oil	–1.00
2-20s, 64s in oil	1.12½–1.15
1-18s, 48s dyed	.87½– .90
1-18s, 50s dyed	.90 – .92½
(Oil yarns 17½c. less)	

FRENCH SYSTEM

1-20s, 58s	.97½–1.00
1-20s, 60s	1.02½–1.05
1-18s, 64s, dyed	1.25 –1.27½
1-26s, 64s	1.05 –1.07½
1-30s, 60s, Warp	1.12½–1.15
1-30s, 64s, Warp	1.15 –1.17½
2-30s, 64s, Fancy mixes	1.32½–1.35
2-40s, 64s, Zephyrs	1.25 –1.27½
1-50s, 66s	1.42½–1.47½
2-50s, 66s	1.40 –1.45
1-60s, 70s	1.75 –1.80
2-60s, 70s	1.90 –1.95

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$0.90 – .95
1-40s, 50-50-60s on cops	1.00 –1.02½
1-40s, 50-50-64s on cops	1.02½–1.05
1-40s, 50-50-64s Australian cops	1.10 –1.15

Underwear mixes, 3 to 5c., Solid color, 35c. additional.

New York Top Futures

	Closed Feb. 17	For Week—High	Low	Closed Feb. 23	Net Ch'ge
February	68.50	68.50	68.40	.....	.....
March	68.50	68.50	68.40	68.50	.....
April	68.50	68.50	68.40	68.50	.....
May	68.50	68.70	68.40	68.50	.....
June	68.50	68.50	68.40	68.50	.....
July	68.50	68.70	68.40	68.50	.....
August	68.50	68.70	68.40	68.50	.....
September	68.50	68.70	68.50	68.50	.....
October	68.50	68.70	68.50	68.50	.....
November	68.50	68.50	68.40	68.50	.....
December	68.50	68.50	68.40	68.50	.....
January	68.50	68.50	68.40	68.50	.....

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.77 –0.78
Half-blood (60-62s)	.70 – .73
High ¾ blood (58s)	.66 – .68
Aver. ¾ blood (56s)	.60 – .62
Low ¾ blood	.57 – .58
High ½ blood (50s)	.51 – .53
46s S. A. and N. Z	.55 – .57
44s S. A. and N. Z	.50 – .52
40s S. A. and N. Z	.46 – .48

TOPS — BRADFORD, ENG. (FEB. 19)

Fine (70s)	25½d	¾ bld. (56s)	18 d
Fine (64s)	23½d	½ bld. (50s)	13½d
½ bld. (60s)	22½d	Cross-bred (46s)	10 d

NOILS — BOSTON

Fine	$0.35 –$0.38	High ½ bld.	$0.27 –$0.28
Half-bld	.32 – .35	Low noils	.21 – .23
Aver. ¾ bld.	.28 – .30	Medium colored	.18 – .20
Fine colored	.23 – .28		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.60 – .62
Lap, fine colored	.38 – .40
Hard ends, fine white	.42 – .46
Hard ends, ½ blood white	.31 – .33
Hard ends, fine colred	.18 – .20
Hard ends, medium colored	.13 – .15
Card, fine white	.23 – .25
Burr, fine carbonized	.24 – .26

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, coarse light	$0.04½–0.05
Merinos, fine dark	.02½– .03
Merinos, fine light	.09 – .10
Serges, blue	.04½– .05
Serges, black	.04½– .05½
Serges, red	.07½– .08
Knit, white	.22 – .23
Knit, red	.08 – .08½
Knit, light hoods	.09½– .10½
Worsted, light	.03½– .04
Worsted, blue	.05 – .05½
Worsted, black	.05½– .06

Silk Yarns

THROWN SILK (60 day basis)
Prices Nominal

Japan organzine, 2 thd. spec. gd. XX sk 85%	$3.10
Japan organzine, 2 thd. grand sk. 83%	2.90
Japan organzine, 2 thd. sp. crack. sk. 81%	2.75
Japan crepe, 3 thd. gd. XX bob. 83%	2.90
Japan crepe, 3 thd. sp. crack. bob. 81%	2.80
Japan grenadine, 4 thd. sp. grand singles, 87%	3.95
Japan grenadine, 3 thd. 90%	4.95
Canton crepe, 3 and 4 thd. 14/16 on bobbins	2.05
Hosiery tram, 3 thd. Japan 90%	3.85
Hosiery tram 5 thd, Japan, 85%	2.90
Hosiery tram, crack XX 78%	2.60

SPUN SILK YARNS (Terms: net 30)

40/2	$3.10	60/2	$3.35
54/2	3.30	62/1	2.35

Raw Silk

(60 Day Terms. Spot Goods)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 87%	$2.10	$2.25	$2.30
Special Grand, 85%	2.20	2.15	2.20
Grand XX, 83%	2.05	2.05	2.10
Special Crack, 81%	2.00	2.05	2.10
Crack XX, 78%	1.90	2.00	2.05
Extra Extra, 73%	1.85	....	....
Best Extra, 68%	1.75	....	....

Canton filature, new style, 14/16	$1.70
Canton filature, new style, 20/22	1.65
Tussah filature, 8 cocoon	1.00

NATIONAL RAW SILK EXCHANGE

	Close Feb. 17	For the Week High	Low	Close Feb. 23	Net Ch'ge
February	1.62	1.62	1.55	1.57	—0.05
March	1.65	1.69	1.58	1.60	—0.05
April	1.71	1.71	1.63	1.63	—0.08
May	1.71	1.72	1.63	1.63	—0.08
June	1.71	1.71	1.63	1.64	—0.07
July	1.71	1.73	1.64	1.64	—0.07
August	1.71	1.72	1.65	1.65	—0.06
September	1.71	1.73	1.65	1.65	—0.06

Total number of bales, 3,630. Total approximate value, $917,301. Trading unit crack XX 13/15 white 78%.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament		First	Second
30	8	.....	$2.25	....
50	12–18	.....	1.35	$1.25
75	18–30	.....	1.20	1.10
100	18–40	.....	1.00	.90
125	36–50	.....	.90	.80
150	30	.....	.72	.70
150	24–44	.....	.75	.72
150	60	.....	.85	.82
150	75–90	.....	.85	.82
170	24–27	.....	.75	.72
170	60	.....	.85	.82
200	30–42	.....	.75	.72
300	42–62	.....	.63	.60
450	42–72	.....	.63	.60
600	72–96	.....	.63	.60
900	100–144	.....	.63	.60

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.35	$1.25	150	$0.75	$0.72
100	1.05	.95	175	.75	.72
125	.95	85			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	75	60	$1.30
25	24	2.85	80	60	1.30
30	24	2.60	100	75	1.10
40	30	1.70	120	90	1.00
52	30	1.50	150	112	.90
65	45	1.40	180	135	.87

ACETATE PROCESS

Denier	Price	Denier	Price
45	$1.60	125	$1.10
60	1.50	150	1.00
75	1.40	300	1.00
100	1.30		

Rayon Waste

Open bleached waste	$0.13 $0.14
Open bleached waste	.10½
Bleached thread waste (mfs.)	.09
Bleached thread waste (misc.)	.06– .07
Colored thread waste	.03– .04
Colored clips	.03– .04

CONVERTED RAYON WASTE

Bleached tops	$0.30–$0.32½
Unbleached tops	.27– .28
Bleached noils	.11
Unbleached noils	.09½
Bleached garnetts	.12
Unbleached garnetts	.13
Colored garnetts	.10– .11

Silk Waste

Kibizzo Kakai Grand XX	0.50
Kibizzo Kakai Triple Extra	.44
Frison Grand Double	.49
Pierced Cocoons	.50

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★

From raw materials to the silicate in your storage ready for use, an organized determined effort is made to maintain the quality of Star Brand.

★

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